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ABSTRACT

The Human Values and the Environment Conference grew out of growing concern about the accelerating deterioration of global environmental quality and the danger of building of a value-free approach to how the environment should be managed. The conference's steering committee tailored the conference to consider some of humanity's religious and secular value systems in relation to environmental stewardship. Conference papers include: (1) "When the Dawn Comes Up Like Thunder: Looking Toward the Twenty-first Century" (Gretchen Schoff); (2) "Jewish Environmental Values: The Dynamic Tension Between Nature and Human Needs" (Saul Berman); (3) "At Home on the Earth: A Christian Ecological View of Human Beings" (Sallie McFague); (4) "Buddhist Views on the Environmental Crisis" (Robert Thurman); (5) "Taking Empirical Data Seriously: An Ecofeminist Philosophical Perspective" (Karen Warren); (6) "American Indian Philosophy and Perceptions of the Environment" (George Cornell); (7) "The Islamic View of the Environment" (Seyyed Hossein Nasr); (8) "The Road from Rio: A Christian Perspective" (Larry Rasmussen) (9) "On Generating Alternative Paradigms" (John Yoder); and (10) "Applying Environmental Values in the Home, Community, School, Workplace, and Political Arena" (Paul G. Hayes, Kathleen Falk, William Graham, and Mary Lou Munts).

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Human Values and the Environment

Conference Proceedings

sponsored by
Institute for Environmental Studies
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Human Values and the Environment

Conference Proceedings

October 1-3, 1992
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Introduction

The idea for the *Human Values and the Environment Conference* grew out of growing concern about the accelerating deterioration of global environmental quality. A conference to foster interest in the danger of building a values-free approach to how we manage the environment seemed an excellent way of bringing knowledgeable people together to address this issue.

The idea received enthusiastic support from several Institute for Environmental Studies faculty members at the University of Wisconsin-Madison and guarded support from the department administration. With the provision that all speakers have academic credentials and that a multi-departmental steering committee be put in place, I was given limited approval to proceed with the planning.

The duly-appointed steering committee of University of Wisconsin-Madison faculty members tailored the conference to consider some of humanity's religious and secular value systems in relation to environmental stewardship. The committee also provided for a session which included a panel of community leaders who addressed ways to transfer the values discussed at the conference into the home, workplace, and community.

Though it was not possible for all religions and value systems to be represented, the speakers who were involved shared ideas which illuminated both the diversity and commonality of their respective doctrines and philosophies. As one participant stated, the conference provided inspiration to move beyond the "differences and dichotomies and fissures in society" and attempt to come together for the common good.

Both formal papers and transcripts of comments are presented here. In the case of the transcripts, the written versions retain much of the spontaneity of the spoken word. Efforts were made not to diminish the integrity of individual voices during the editing process.

Charlotte Zieve
Conference Coordinator

The path
to the
solution
lies in
education.

Robert Thurman

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When the Dawn Comes Up Like Thunder: Looking Toward the Twenty-first Century

by Gretchen Holstein Schoff

A recipient of a Distinguished Teaching Award from the University of Wisconsin-Madison, Professor Schoff serves on the faculties of the Institute for Environmental Studies, the Integrated Liberal Studies program, and the College of Engineering. During a one-year sabbatical at the University of Chicago Divinity School she studied the relationship between modern systemic theology and modern worldviews.

A writer of mystery stories, trying to explain his craft, its demands for coherence and for keeping clues under control, once commented, "If you hang a gun on the wall on page one, you have to fire it before the story is finished." It would be convenient to liken the crafting of a conference to the crafting of a good story, in which case the opening remarks should hang the gun on the wall and the rest of the conference should fire the gun. Given a story title as vast as "Human Values and the Environment" proves to be a challenge—so many possible twists of plot, so many characters and forces. Most daunting of all are the two terms, "human values" and "environment," which defy tidy definition. We are at the center of a mystery story still being written. Its last page is unknown, but we probably will play a part in how the story turns out.

Having admitted both untidiness and mystery, let us begin bravely with the question of motive. Look beneath the varieties of philosophies, religions, and ways of living represented here and a simple but powerful motive emerges: a love of life and a desire that it have meaning. Freud's idea of the death wish notwithstanding, humankind, even in its blackest periods, wants to survive; it clings to a love of life and asks questions of its meanings. No other motive is so compelling, so universal, so capable of embracing the whole human family.

Search for some story and symbol to make love of life and meaning more concrete, some way of making this impulse graspable, and, as so often is the case, nature will provide both symbol and story. Few things in nature speak more eloquently than birds. It is no accident that birds so often become icons of the mysteries and the unknowable love of life. At once fragile and powerful, small as a hummingbird at the window, strong as an eagle plunging precipitously from a cliff, birds swing between earth and sky. They come and go with the seasons, migrate from pole to pole. They remind us of transcendence; they see farther, take the long view. And sometimes they hide away, singing to us even if we cannot see them.

Not surprising, then, that birds would appear in so many myths and stories of humans and their environment. A dove brought the olive branch after the catastrophe of the Great Flood; the Haida Indians have made the raven the symbol of the creator, and, in Asia, the Phoenix bird goes down in flames and rises from its own ashes, born again and again.

The symbol of birds and love of life became palpable for me in a "real life" story about three years ago. A keen Baltic wind whipped the Soviet flag that flew over the deck of the ship. Ten minutes out of Helsinki, headed for Tallin, Estonia, a mini-United Nations began to gather on the deck. A young Japanese ran toward an American, greeted and hugged him, and said "Did you hear? They spotted one of my birds in China?" A Swedish photographer and his wife, hauling a battered metal trunk filled with precious cameras and lenses, immediately plunged into conversation with a Frenchman and a German—talking of a network of everyday citizens who were calling in information to local radio stations. They were watching for flocks of migrating birds spotted in their area. Before nightfall, 140 people from Asia, Europe, North Africa, North America—forty nations in all—would have arrived in Tallin to spend a week sharing information about endangered cranes.

It was October 1989, and I was travelling as an observer to the Palearctic Crane Workshop. It was a week of spectacular photography sessions, learned papers, and unforgettable sights; in the countryside, Estonians hunched like Millet figures in the fields, frantically digging potatoes in preparation for a bleak winter; clouds of Eurasian cranes floated against a sunset and settled on fields.

I realized how powerful the bond between humans and nature can be—the Chinese and Soviet Siberians were laying plans for Lake Khanka, where over 120 species of waterfowl live. The lake lies on the Soviet-Sino border, a place of military and political tension. Yet for the sake of birds, Chinese and Siberians, whose

countries had exchanged gunfire at such borders, could spend days working peacefully together on plans for joint research and perhaps, one day, a joint international reserve. For those few days, protection of the environment loomed larger than national borders, and all the while cranes flew freely, without passports or check points, across countries, waters, continents.

The real meaning of crucial episodes in our lives most often elude us at the moment of their happening. Only in retrospect do we understand their context, how they are carriers of the past, exist in the present, and are rolled toward the future. On that October day in 1989, the last decade of this century was but three months away. Within one month the Berlin Wall would crumble. Not long after, the Soviet Union, as it had been known for most of this century, began to unravel. Desert Storm, the twentieth anniversary of Earth Day, and the Rio conference on the environment were yet to come.

We are on a roll toward the twenty-first century, and it is a dawn that comes up like thunder. As momentum toward the dawn of a new century begins to gather force and insistency in the last decade of the old, it will surely produce, among the thoughtful people, the inevitable bittersweet nervousness that typifies *fin de siecle*. Like a hundred birthdays rolled into one, there will be retrospection, historical review, analysis of accomplishments, and failures. The possible scenarios and collages of images are endless.

What will people call this century? It could be called the century of wars, wars of a proportion and ferocity that brought an end to innocence. The entire century could be traced by its trails of blood, its escalation of weaponry, its genocides and holocausts. Or the century could be tracked by its technological marvels—wizardry that put men on the moon, linked the globe by satellite and computers, gave us CAT scans, antibiotics, insights into the genetic code. It could also be called the age of ecology, the era when we began better to understand the cogs and wheels of natural systems, and to realize, for good or ill, that humankind is one of these cogs. In the history of ideas, few concepts have cut so broad a swath, produced as many seminal works so quickly, or caused so much puzzlement. Think, for example, of Forrester and Meadows's groundbreaking computer model, *Limits to Growth*, Leopold's "Land Ethic" essay, Hardin's "Tragedy of the Commons," White's "Historical Roots of the Ecological Crisis," Carson's *Silent Spring*, Van Potter's *Bioethics*, Schell's *Fate of the Earth*, Wilson's *Biodiversity*, Ehrenfeld's *The Arrogance of Humanism*, Erlich's *Population Bomb*, and now each year from Worldwatch Institute an assessment of the *State of the World*. Consider the new movements and ways of understanding human-land relationships: deep ecology, bioregionalism, ecofeminism. Or the terms coined: sustainability, green revolution, lifeboat ethics, ecopolitics, the greenhouse effect, acid rain, nuclear winter, ecosystem, biodiversity.

Our vision has been stretched by the Age of Ecology—to the microscopic, molecular, and subatomic on the one hand and to the galactic world of a whole universe on the other. Paradoxically, the stretching has made us more keenly aware both of our significance and insignificance, our powers and our vulnerability.

It is against this backdrop of events and insights that this conference has been planned. Planners thought long and hard before settling on its title. Words like "ethics" and "values" slip and slide—are invoked, used, abused by politicians, corporations, academicians, theologians.

For some, the word "values" is a red flag—and especially so because of our historic fears of the dangerous conflation of church and state, a conflation that is, more often than not, ruinous to church and state alike. Values discussions can also open a door to sanctimony, holier-than-thou rigidity, exclusive claims to high moral ground. When this happens, rational discourse disappears and people find it difficult to listen to each other. Within academe, in public institutions as well as those private schools that had their origins in church affiliation, the secularization of the twentieth century has been so complete that some value questions are scarcely asked at all. At Harvard, Gordon Allport put it this way:

> We divide our medical science from our burning curiosity about the place of evil in life; we pursue technology with no question as to its destination. We invent atom bombs but cannot control them, we invent computers, but have little idea as to their place in human affairs. We study science and technology and let them fragment our lives into bits and pieces. And in a modern educational setting, we spend most of our time with the characteristic *what* questions, not with the ultimate *what for* questions.

If I understand the intent of this conference, its focus on environment and human values tries to enliven and recast old questions by addressing the oft-neglected *What for?* and *Why?* Answers to the question are traditionally to be found in philosophy, ethics, theology, and religion. We have invited speakers and hoped for participation from attendees whose belief systems, traditions, professions, and lifestyle practices represent a broad spectrum.

We hope for cross-fertilization, discovery and intersection—a fresh look at the place where environmental practices and insights become questions not merely of science, but of human values—of goals and intentions.

There are caveats. We should remember that inquiry into humankind's relationship to nature has been with us since we began the slow climb out of the primeval soup. T.H. Huxley, asking whence we have come and where we are headed, called it "the question of questions." We hear the question when the Druid knocks on trees to call the spirits, in the chant of the Native American who calls Earth mother and father, in the voice of St. Francis who reaches out to sister ant and brother wolf. In our time the question of questions lurks in the mind of the doctor who slices into the body of another human being; the legislator who must decide on the fate of spotted owls and loggers, whose jobs depend on the woods where owls live. The question is there for the millions of women who bear and raise children, cut firewood, plant, and cultivate—yet cannot read, are never heard or asked for an opinion, or counted in GNP or productivity figures.

In brief, to be human is to be engaged, implicitly or explicitly, in the question of questions: *What for?* and *Why?*

Another caveat: Secularism and the twentieth-century "religion of science" have found it impossible to ignore or put aside either the vocabulary or the conceptual frameworks of traditional values and ethic systems. Leopold speaks eloquently of the need for a land ethic and couples it with the necessity for a "change in human affections." Lester Brown comments that we have concluded the twentieth century battle for ideology (changing each other), a battle driven for so long by the Cold War, and have now begun a more difficult struggle, changing ourselves. Look at any scientific work that extends beyond pure presentation of empirical data to questions of its appropriate application, and "value" words like love, compassion, empathy, justice, peace begin to appear. Similarly, when the "value" of resources is discussed, value is presented not only as food, air, water, plants, and animals, but with an eye toward cleanliness, health, sustainability. How shall we probe the underlying values? Which are the goals of these lifestyles, these beliefs? What are the intentions, the motives? What are the values trying to do?

There is much to be learned from a fresh examination not only of doctrines, but of rituals and scriptures. Within the Judaeo-Christian tradition, Lynn White's essay "The Historic Roots of Ecological Crisis," for example, has helped to catalyze the theological community into a re-examination of centuries-old traditions, to see through twentieth-century eyes. White asked, "How did we get into this ecological mess?" His historical tracing led him to point a finger at the Judaeo-Christian tradition. As theologians have sought to answer White, the accretions of centuries of the institutional church have been peeled away. We have learned about the effects of translation, from one language to another, from one culture to another. We also have found the traditions to be richer than we thought. Probably far too much ink and theological energy has been spent in the last two decades on going over old ground defining words like "dominion" and "stewardship." It is time to move on to what the great ethical systems, stories, and legends have to say to us now. What, for example, is to be found in the story of the Good Samaritan, the miraculous draft of fish, the feeding of the 5,000 that speaks to discouraged twentieth-century humanitarians trying to feed the hungry in the midst of anarchy?

There are many questions peculiar to our time which need to be asked with eyes open and ears cocked toward our new knowledge of a planet environmentally stressed and polluted. Many a time, the "value" questions surface at "scientific" conferences, at economic and political summits. If you have attended or read the proceedings of such conferences, you notice that they have a characteristic shape. They begin with position papers, plenaries, and presentations of empirical data.

The "moderates" at such meetings present their analyses and findings, backing them up with research, tables, graphs, slides. If what is presented is good science, it should be able to be replicated and can be very helpful in setting priorities and in making predictions or policy. This is the measurement side of ecology, what Aldo Leopold calls the "cold potato mathematics." Quite often such meetings degenerate into arguments over numbers, rates of change. Extremists in such arguments are easy to recognize. At one end of the spectrum are the Apocalyptics who see the end of the world at hand; and at the other end are Cornucopians, certain that a combination of nature's recuperative powers, technology fix, and human ingenuity will keep us going indefinitely. Invite an "Apocalyptic" and a "Cornucopian," give them the same data, and they will read it differently.

Conclusions and summary sessions at such conferences have a similar predictability. The summarizers will call for changes in scientific practice, in the law or regulatory process, or in politics, or in economic structures, or in land tenure. Then they will conclude, and often lamely, with a *grandstand* wave at values, saying, "Of course, these changes alone will not solve this problem. People and what they value must change."

The phenomenon of the "grandstand wave" toward environmental values is not confined to secular conferences. The appearance of environmental values on the agenda and missions of the American mainstream religions is spotty, at best. If attention to the environment makes the list of agenda items, it is usually cast in theoretical, generalized language such as "care of the earth." Very little trickles down into the everyday life and practice. The reasons for this are complicated, but among them are these: First, churches approach ecological thinking with caution because it somehow seems tainted with primitivism, a step backward to shamanism and nature worship. Second, mainstream religions, especially in the West, are creatures of modernity. Most of our institutions (law, church, education) are bureaucratic and hierarchical. They use many of the same measures of success—efficiency, growth, and the bottom line. Within churches, when times are hard and service to people is your business, the strains on limited resources push environmental issues far down on priority lists. Finally churches have limited experience in translating such terms as "care of the earth" into spiritual or practical education, preferring instead to leave it to the environmental educators or being satisfied with a rather vague pantheism, a "feeling good" about sunrises and sparkling waters.

The results of neglecting environmentalism are predictable. Those in positions of church leadership duck out the side door with their priority lists, saying they have other fish to fry and ignoring what science is telling us—that we may reach a place where nobody has any fish to fry. Credibility of churches is questioned by environmentalists; and since the seam between faith and practice is so frayed in the mainstream religions, alternative lifestyles such as bioregionalism and ethical systems like ecofeminism tryeither to reconstruct the cultural fabric or repair the seam between belief and practice.

Within the last few years, discussions of the environment and the place of human values have undergone a sea change. They are marked with a sense of urgency about the state of environment, engendered largely by members of the scientific community. One of these, E.O. Wilson, has attracted a wide readership with his book *Biodiversity*, and his efforts to save tropical rain forests. Wilson characterizes the loss of diversity on a genetic, species, and ecosystem level as proceeding at rates that will reduce diversity of living things to the lowest level since the end of Cretaceous extinctions sixty-five million years ago. Says Wilson "The ultimate consequences of this biological collision are beyond calculation and certain to be harmful." By threats to biodiversity Wilson means extinction, and extinction is the one irrersible environmental chang2.

Lester Brown's introduction to World Watch Institute's 1991 report is no less urgent. Since the first Earth Day in 1970, the globe has lost 200,000 acres of tree cover; deserts have expanded by 120,000 hectares; 480 billion tons of topsoil have been lost; and 1.6 billion people added to the population.

Because of the power of the media and the high visibility of tragic accidents like that at Chernobyl, some people are beginning to pay attention. This is news that demands not only regional and national response, but global response. We share the planet. We are in this together. The scientists and bookkeepers on the state of the world have had their fingers on the "urgent" button for some time.

The sense of urgency is coupled with a dizzying redrawing of the world's political maps. Twenty years ago my sister bought an elegant Rand McNally globe as a graduation present for her husband. Last year she decided it was so badly out of date it should be replaced, and she ordered one to fit the handsome wood stand it occupies. The order took several months to be filled. By the time the globe arrived, it was out of date again. The far-flung colonialism that created so many of Asia's and Africa's countries is fast-fading. The former Soviet Union and Eastern Europe are undergoing Balkanization at a staggering rate. One analyst predicts that by the next Olympic games, in 1996, there may be as many as thirty new countries represented.

In short, the intersection between human values and the environmental future takes place at a volatile uncertain crossroad, a place where the concept of nation-states is being radically transformed at the very time when cooperation between them must either be renegotiated or relegated to supra-national and international entities. Economists look to politicians, who look to ecologists, who look to anthropologists. Given the speed and rate of change, it is small wonder that those international entities already in place are scrambling, regrouping, rethinking their agendas—such entities as the World Bank, the World Court, the World Health Organization, the United Nations. The age of ecology is reconfiguring how we walk the line between conservation and development, how we might encourage sustainable agriculture and begin to turn back the tide of cash crops and exports that damage ecosystems; ecology is starting to reshape what kinds of economic incentives and revisions in the monetary system and forms of aid may be required. This is the cacophony of human

voices and human values that we hear in the discussion of international agreements and protocols on the environmental conference in Rio.

It must also be sensed in the silences—the tin and cardboard *barrios* and the street children cleared away and hidden to make Rio presentable, in the silences of millions too weak and exhausted to say anything. Doris Lessing, in her novel *Summer Before Dark*, says it well. Her central character, after a month of work as a translator at a world food conference, thinks back on the elegant hotel suites, the lunches and banquets and muses, "I wonder if anyone here has ever been hungry?"

In pondering our environment's future, we must re-cast the value questions to match the realities of urgency and of new maps. We need to be explicit, to translate abstraction into grappling with facts:

- How, for example, do human values intersect with our convictions about population control? What is the motive for such belief?
- How do human values affect our lifestyles?
- What human values come into play in questions of distributive justice? Or more explicitly, do developed, industrialized, resource-rich countries have responsibilities to developing, resource poor countries? If so, what form do these responsibilities take?

We in the United States are particularly vulnerable to questions of distributive justice. The accident of our birth places us in the richest country on Earth. At the moment, if we are not feeling guilty we instead feel a bit like the Augustine of the Confessions. "Lord, let me be holy—but not quite yet."

No matter which of these issues is considered, or any one of a myriad others, we should be willing to ask, *Why* do I believe this? What convinces me? Might I be wrong?

The intersection between environmental and human values touches us at the level of personal morality and personal choices—when couples decide whether to have another child, when we pay renewed attention to where our food comes from, what we eat, how we earn our money and spend it, what we do with our trash, how we view our life work.

Environmental and human values intersect at the public level as well—our choice of leaders, our economic systems, our tax structures, our regulatory structures, our rule of law. No matter how much we love life, we will be faced again and again with the realities of greed and self-interest, with conflicting sets of values, with the "render unto Caesar" question of moral man in immoral society. There have been some, like Garrett Hardin, who suggest that the environmental crisis cannot ultimately depend upon appeals to conscience alone, that we will be propelled toward systems of mutual coercion by mutual agreement.

There are others who believe that choosing the good, the compassionate, the clean, the humane way must begin with individuals. Years ago and speaking of his own tradition, Christianity, Chesterton wrote, "It is not that it has been tried and found wanting, but that it has been found difficult and never tried." In either case, the tug between head and heart, between fear and greed on the one hand and altruism on the other, should humble us.

Of course we long for simple solutions, easy answers—if only to combat the circuit overload on the mental machinery. Unfortunately, ecological thinking cannot be simplified. Ecology's early declarations of the interdependence of all things can be modified, scaled down from "every thing is connected to everything else" to "it's never possible to do merely one thing." But the fundamental geometries of ecology, the chains of being, the pyramidal and layer-cake structures, the energy flows are, by their nature, complex.

Value systems are equally so. They are complex because they consist both of the rational and the intuitive. I know of no value system worthy of the name that does not have a place for resting and replenishing the mind with some kind of contemplative discipline or assertion of an ideal larger and more long-lived than individual selves, whether it be the discipline of prayer, meditation, contemplative exercise, or just the ability to create a psychological "room of your own" even when you're frantically busy. Humankind has been very ingenious in contriving ways to withdraw, calm down, turn off that endless tape that rattles in our heads if only to see if there are sounds we had not heard. A remarkable case in point is the private diary of United Nations Secretary General Dag Hammerskjold, *Markings*, a record of his interior musings written when he was most deeply engaged as an international public figure as well.

This experiential side of values is as important as rational argument. The novelist Walker Percy put it succinctly: "You can get all As and still flunk life."

At some point, we rely on intuition; we take leaps of faith, we sense the gaps and riddles. Value systems are antidotes to intellectual arrogance; they have the power to highlight immaturities, to remind us how small are the bits of knowledge we can put together in a lifetime.

You may think it strange that in a twenty-first-century conference, words from the nineteenth century should be chosen as emblematic; but the poets of the nineteenth century wrote from an age when values still

figured prominently in intellectual currency. Kipling's "dawn comes up like thunder" describes the century ahead. It will be stormy, noisy, electric, charged with potential and possibility. I do not think this conference would have been planned or you would have come if hope for that potential were not there. "Human Values and the Environment"—we could also have called it a conference on Hope.

These remarks began with a story of birds, and it is with birds that they end—the birds who sing of a hope so often hidden, but insistent. Emily Dickinson, with her usual genius for describing vastness in fifteen words or fewer, wrote, "Hope is the thing with feathers, that sits in the soul and sings."

Thomas Hardy agreed, in a poem which ranks as one of the finest lyrics in the English language.

The Darkling Thrush

I leaned upon a coppice gate
 When Frost was a specter-gray,
And Winter's dregs made desolate
 The weakening eye of day.

The tangled bine-stems scored the sky
 Like strings from broken lyres,
And all mankind that haunted nigh
 Had sought their household fires.
The land's sharp features seemed to be
 The Century's corpse outleant;
His crypt the cloudy canopy,
 The wind his death-lament.
The ancient pulse of germ and birth
 Was shrunken hard and dry,
And every spirit upon earth
 Seemed fervorless as I.

At once a voice burst forth among
 The bleak twigs overhead
In a full-hearted evensong
 Of joy illimited;
An aged thrush, frail, gaunt and small,
 In blast-beruffled plume,
Had chosen thus to fling his soul
 Upon the growing gloom.

So little cause for carolings
 Of such ecstatic sound
Was written on terrestrial things
 Afar or nigh around,
That I could think there trembled through
 His happy good-night air
Some blessed hope, whereof he knew
 And I was unaware.

Hardy wrote "The Darkling Thrush" in the winter of 1899-1900. An old century had ended. A new century was beginning.

"The Darkling Thrush" is from *The Complete Poems of Thomas Hardy*, edited by James Gibson. New York: Macmillan, 1978. Printed with permission..

Jewish Environmental Values: The Dynamic Tension Between Nature and Human Needs

by Saul J. Berman

Rabbi Berman is an associate professor of Jewish studies at Stern College of Yeshiva University in New York City and is an adjunct professor of Jewish law at Columbia University Law School. He has served as rabbi of the Lincoln Square Synagogue in New York, Young Israel of Brookline, Massachusetts, and Congregation Beth Israel of Berkeley. He represents orthodox Jewish thinking.

Does Judaism address the relationship between persons and nature? Put with such directness and simplicity, the obvious answer is a rousing and unequivocal, *Yes*! Indeed, the question is not whether Judaism addresses this issue, but what precisely it is that the Jewish tradition teaches.[1]

The framework for Judaism's teachings on the environment emerges in the dynamic tension between two verses at the beginning of Genesis. In Genesis 1:28, God blesses the newly created humans, "... Be fruitful and multiply and replenish the earth and subdue it; and have dominion over ... every living thing...." This apparent grant of absolute power was seized upon by Arnold Toynbee and some environmentalists as a basis for the extraordinary assertion that the Bible was at fault for human exploitation of nature.[2] Toynbee and others, in their selective reading of the Bible, did not even bother to take note of its language just one chapter later. In Genesis 2:15, God takes the newly created human, "... and placed him in the garden of Eden, to cultivate it and to guard it." This verse imposes upon humans a stewardship relationship to the world in which they live.[3]

Are the two verses contradictory or complementary? The obvious approach of all Jewish biblical commentators was to assume that the two verses could be reconciled in arriving at a synthesis of the two extreme indications. Thus, for example, one modern Jewish commentator, Malbim, points out that the verse in Genesis 1 is no more than a blessing, not a directive. Thus, he contends, the point is simply that if humanity heeds God's commands, then God will allow the land and its contents to be subdued by obedient humanity.[4] The religious teaching according to Malbim, as according to Rabbi Samson Raphael Hirsch,[5] is in reality the proposition that God, not man, is the continuing owner of all of the earth.

Rabbi Joseph B. Soloveitchik suggests, more sharply, that the two verses represent two aspects of the nature of the human being which are in a constant state of tension. In Rabbi Soloveitchik's approach there resides the awareness that there is unavoidable dynamic tension between the capacity to exercise control over nature and the duty to act towards nature with a sense of fiduciary responsibility.[6]

Truth be told, the various commentators—ancient, medieval, and modern—who have discovered the essential complementary character of these two verses drew their awareness not from any apologetic need to defend the ethical integrity of Torah, but from their recognition that much in the rest of biblical legislation requires this particular understanding of these verses.

First, on a symbolic level, the human's right to exploit nature is severely circumscribed in the Bible. For example, one of the most essential religious institutions of Jewish civilization is the Sabbath. The central character of the Jewish Sabbath is formed by the biblical proscription against *melacha*, (usually translated as "work") on the Sabbath day. Jewish tradition insists that the notion of *melacha* does not relate to the physical effort expended, nor solely to the creative result of the behavior. Rather, the Rabbis insist, the prohibition is addressed to the attempt to prevent the productive transformation of objects, whether natural or man-made. Therefore, while it may be permissible to rearrange the furniture within one's home, it would not be permissible to turn on a light switch or drive a car, though the former clearly involves greater expenditure of energy than the latter two prohibited acts. The point is that the essence of the prohibition against *melacha* (productive work) on *Shabbat* is to teach that the productive manipulation of the environment is not an absolute right.[7]

Let's look at another instance of such symbolic limitation. The laws of the sabbatical year teach that not only are the powers of the individual subsumed under the general rights of the community, but also that the individual does not have the right of exclusive dominance over his own property. These teachings emerge from the biblical indications that persons have a duty to allow their land to lie fallow during this entire year. Beyond which, according to rabbinic understanding of the Bible, there is no absolute right of exclusion during

this year; that is, persons may enter upon the property of another in order to take growing crops which they need to sustain themselves and their families.[8]

Such teachings come as no surprise to us. The Hebrew language itself conveys the same powerful message through the absence of a single word through which the concept of absolute ownership can be conveyed. All Hebrew words which are commonly used to express ownership in reality only express the notion of possession.

Phrases like *yesh li*, or *shayach li*, or even *baal*, do not convey the sense of absolute ownership, but of possessory or other complex relationships. (We would hope that any husband understands what Judaism struggled so hard to convey, that his Hebrew title, *baal*, conveys a complex pattern of duties, rights, and responsibilities, but certainly not ownership!) The language here is the handmaiden of theology; we cannot speak of human "ownership" because our theology does not believe that there is rightfully any such notion. God is the "owner" of all, and we humans have simply possession rights in various degrees of complexity.

It is not only on the symbolic plane and on the linguistic plane that the teachings of Torah address the relationship between humankind and nature. On the direct practical level, there are dozens of Torah laws which regulate in great detail what we may and may not do to the environment. The Torah prohibits the cross-breeding of different species of animals,[9] as it bans the transplanting of branches of differing species of fruit trees,[10] and the intermingling of seeds in planting.[11]

The Torah, there and elsewhere, teaches us the lesson of the inviolability of nature, of our need to make symbolic and real affirmation of nature's original order, in defiance of humankind's manipulative interference.

Likewise, Torah prohibits various forms of activities which would involve cruelty to animals.[12] We may not harness together animals of different strengths;[13] we may not pass by an animal which has collapsed under its load, but are duty bound to help it;[14] we may not slaughter a mother and its young on the same day[15] as we may not take the fledglings while the mother bird hovers over them.[16] Some eighteen different laws of the Torah call upon us to live in awareness of the fact that God's creatures require our care and deserve our attention.

All of God's creation, and even the increments which other humans have made to his world, are entitled to be protected from wanton destruction. Thus do the Sages understand the import of the verse in Deuteronomy,[17] which literally would ban only the destruction of fruit-bearing trees during war.[18] Maimonides understands the law this way in his listing of the 613 biblical commandments,[19] as well as in his fuller treatment of this legal issue in his magnum opus, the *Mishneh Torah*.[20]

What, however, is the underlying attitude of Torah in all of this protective legislation? Is the Torah teaching us that all substances within nature have a right to exist which cannot be violated by humans? The fact is that much of contemporary environmental thinking seems to be moving precisely in that direction. There is an increasing rejection of the stewardship model in favor of an absolutist assertion as to the integrity of nature. Would Torah agree to such a proposition?

The law of Lo Tash'chit, the biblical prohibition against the wanton destruction of nature, may provide us with an instructive illustration. The passage in Deuteronomy reads as follows: "When you besiege a city for a long time, fighting against it to conquer it, you shall not destroy the trees thereof by forging an axe against them; for you may eat of them, and you may not cut them down, for is the tree of the field a person that it should be besieged by you? Only trees which you know not to be fruit bearing trees, may you destroy and cut them down; and you may build bulwarks against the city that wars against you, until it is subdued."[21]

The language of Rambam, as well as the language of the early *Halakhic Midrash* on which his codification of this law relies, is powerful in its generality. Rambam insists that this prohibition does not only apply to fruit-bearing trees, but to all objects which either exist in nature, or which have been manufactured by human beings.[22] The level of protection provided for seems to be vast, all-inclusive, and without exception. Yet careful analysis of the passages in the Talmud dealing with this law reveal a vital and different subcurrent.

The Gemara in *Bava Kamma*, with remarkable understated radicalism, suggests that protection even of fruit-growing trees may be overridden by economic need.[23] The Gemara in *Shabbat* contends that destruction for protection of health is permissible.[24] Elsewhere, the Gemara *Shabbat* goes even further in indicating that personal aesthetic preference is sufficient to justify what would otherwise constitute a wasteful use of natural resources.[25] The Gemara of *Shabbat* in yet a third location, to top off the indications, contends that the gratification of a psychological need is sufficient also to override the prohibition of *Lo Tash'chit*.[26] Indeed, in the context of all of these exemptions, it is difficult to construct a case in which violation of *Lo Tash'chit* would actually be present.

To rephrase the situation, the talmudic texts recast the prohibition of *Lo Tash'chit* as a prohibition against the wasteful use of resources, while expanding the range of human needs which are sufficient to constitute a destructive act as non-wasteful. This is a powerful counterbalancing of human needs against the autonomous rights of nature, in which the former clearly wins out.

It is this view which is in turn codified by Rambam in his selection of the term *derech hash'chata* ("in a wasteful fashion") which suggests that only wasteful destruction falls within the purview of the prohibition.[27] This position is adopted as well by the Tosafists, who take even further the exemption for psychological need in their contention that destruction in expression of anger is not violative of the law of *Lo Tash'chit*.[28] The dynamic tension between the two verses—*ve'kivshuha* and *le'avda u'leshamra*—as understood by Rabbi Soloveitchik are simply playing themselves out in the realm of Halakha. It is not acceptable in Jewish law to make an assertion of the independent rights of nature. The rights of nature need to be carefully balanced, calibrated, against human interests; and in that balancing it will be the human interests which will have priority.

Can we then safely turn our attention away from the environment and simply refocus on human needs which are, in any case, so vast and demanding? After all, in America as elsewhere, the problems of poverty and homelessness, starvation and AIDS, war and crime, are certainly pressing and make legitimate demands on our time and our resources. How can we turn our attention to the snail darter and the spotted owl, to species preservation and the chemical components of the atmosphere, if we haven't even yet begun to address hatred and inhumanity within our own species?

A reasonable response to this question begins with the recognition that the life of *mitzvot* is just that, a life of *commandments*, plural, not a life of *mitzvah*, singular. The life of *mitzvot* does not have a single, overriding, all important value to be sustained singly, beyond all others. Even belief in God, if it is a *mitzvah*, is just one of 613.

The life of Mitzvot is like a small garden with 613 flowers, each of which needs to be cultivated and cherished so that the magnificent beauty of Jewish life in its entirety may be achieved and appreciated. The task before the Jewish people, as the task confronting all of humanity, is not to discard or disregard the garden of ultimate values and replace it with this single new overriding concern: environmentalism. Our task is to discover within the garden of 613 flowers those few or many which demand of us attention to the problems of the environment. And those flowers most certainly exist.

I would like to propose two challenges and thereby two stages in our responsibility to environmental issues.

Hatzalah (Short-term rescue): Jewish law posits a duty of rescue of persons based on the biblical mandate, "You shall not stand idly by the blood of your neighbor" (Leviticus 19:16).[29] This demand, almost unique in the annals of legal history,[30] makes it a crime for a Jew to fail to intervene in the rescue of an innocent person from injury or death. As is indicated by the conjunction of verses, this duty is based on the underlying principle of "You shall love your neighbor as yourself" (Leviticus 19:18). It is precisely in consequence of our duty to love the other that we bear also the responsibility to rescue her from danger.

But there is, in Jewish law, no duty to love nature or God's world, why then would I assert that we have a duty to rescue it? Firstly because it has become abundantly clear that the real risk in our continued pollution of the environment is not the earth—but rather it is humankind. The earth will undoubtedly survive our depredations and will continue to swarm with life, but humankind may be extinguished and end this stage of God's experiment on the earth. If we love humanity, then we must now act to save it from ourselves.

Toynbee had suggested that the only way to proceed to reverse the Judeo-Christian teaching of human mastery over the environment was to revert to pagan, pre-Christian thinking as to the sacralization of nature. Aside from his failure to comprehend Jewish teachings on this entire matter, Toynbee's willingness to abandon the entire moral progress which humanity has made under Judeo-Christian influence is astonishing. What price environmentalism! We need not abandon monotheism nor adopt pagan beliefs. We need simply to teach Torah's duty to rescue humanity from ourselves because of our love of humanity, of ourselves.

A second path to the same conclusion is available through the awareness of our duty to love God. In Jewish law, the duty to rescue persons is extended to the rescue of their property. The *mitzvah* of the return of lost property is one manifestation of this responsibility.[31] Our duty to the beloved neighbor is to keep him whole in both body and property.

But, as we demonstrated earlier, an essential Jewish teaching is that the entire world belongs to God. If then we love him, we are duty-bound to protect and preserve his property—this entire earth.

Anavah (Long-term rescue): The real cause of environmental pollution, the real reason that people have brought the earth to its knees begging for relief, has nothing to do with people's excessive observance of the

command of "subdue it!" It is not the Jewish teaching of the centrality of God's covenant with humanity which is at fault for human mistreatment of the environment.

The real cause of abuse is human failure to heed religious teachings against the exclusive importance of material goals. The real cause of our destruction of the environment is our total preoccupation with wealth and comfort. To the extent that science and technology have become the handmaidens of profit instead of truth, they have become part of the problem and need now to be redirected to being part of the solution.

The longer-term solution to environmental problems depends upon our ability to re-educate ourselves and our children towards humility—towards *anavah*—and moderation. We need to devote ourselves to the elimination of material excess in our lives, in our homes, in our offices, in what we eat and in the technology which we utilize so wastefully. Even our waste is wastefully disposed of. Only such a reorientation, in which material excess is replaced with deep spiritual awareness of the ultimate partnership between humanity and the earth in the achievement of God's goals, can lay the foundation for a new and more healthy relationship between us and our environment.

The challenge ahead of us is the common challenge of science and religion together—to discover and implement means of assuring the physical survival of humanity on Earth, and to discover and implement the means of assuring the spiritual survival of a more humble and more modest humanity on this, God's earth.

Notes

1. For an early treatment of these issues, see Eric G. Freudenstein, "Ecology and The Jewish Tradition," *Judaism* 19:4, Fall 1970.
2. *The New York Times*, op ed page, May 1, 1970.
3. An immediate Jewish response to Toynbee was penned by Norman Lamm, "Ecology, The Work Of Creation," *Sh'ma* 1:1, May 22, 1970. An expansion of that response by the same author is, Ecology In Jewish Law And Theology," Chapter VI of *Faith and Doubt*, New York: Ktav Publishing House, 1971.
4. Malbim, Meir Loeb Ben Jehiel Michael, (1809-1879), *Commentary to Genesis 1:28*
5. *The Pentateuch*, translated and explained by Samson Raphael Hirsch, English edition by Isaac Levy, Vol. 1, London, 1959. Genesis 1:26-28.
6. Joseph B. Soloveitchik, "The Lonely Man Of Faith," *Tradition* 7:2, Summer 1965, pp. 10-16.
7. Dr. I. Grunfeld, *The Sabbath*. Feldheim Publishers, 1972, pp. 3-29.
8. Dr. I. Grunfeld, *The Jewish Dietary Laws*, 2:11, Shemittah and Yobel. London: Soncino Press, 1972, pp. 94-155.
9. Leviticus 19:19.
10. Leviticus 19:19, as per Maimonides, *Book of Commandments*, negative commandment No. 216. (Maimonides, *The Commandments*, translated by Charles B. Chavel. London: Soncino Press, 1967, p. 210.)
11. Deuteronomy 22:9.
12. For an outstanding general treatment of this issue, see Elijah Judah Schochet, *Animal Life in Jewish Tradition*, Chapters 9, 10, and 13. New York: Ktav Publishing House, 1984, pp. 144-194 and 245-272.
13. Deuteronomy 22:10.
14. Exodus 23:5 and Deuteronomy 22:4.
15. Leviticus 22:28.
16. Deuteronomy 22:6-7.
17. Deuteronomy 20:19-20.
18. Sifrei to Deuteronomy 20:19-20. (Finkelstein edition of *Sifrei Devarim*, pp. 238-240.)
19. *Sefer Hamitzvot*, negative commandment No. 57.
20. *Mishneh Torah*, Book 14, Shofetim, Laws of Kings 6:10. There is a substantial literature around the apparent discrepancy between Maimonides's very expansive position in *Sefer HaMitzvot*, as opposed to the reading of his position in *Mishneh Torah* which appears to hold that the prohibition, in its biblical meaning, applies only to fruit-bearing trees. In reality, all that differs in the latter is Rambam's recognition of *Lo Tash'chit* as a *Law Shebiklallot*, a compound prohibition, in which the biblical penalty of lashes pertains only to that violation which is expressly mentioned in the Torah. The prohibition itself applies to all objects of value.
21. Deuteronomy 20:19-20.
22. See notes 17-20.
23. Babylonian Talmud, *Tractate Bava Kamma*, pp. 91b-92a (Soncino edition, pp. 528-531.)
24. Babylonian Talmud, *Tractate Shabbat*, pp. 128b-129a (Soncino edition, pp. 643-644.)
25. Babylonian Talmud, *Tractate Shabbat*, p. 140b (Soncino edition, pp. 710-711.)
26. Babylonian Talmud, *Tractate Shabbat*, p. 105b (Soncino edition, pp. 510-511.)
27. See note 20.
28. *Talmud Kiddushin*, p. 32a, Tosafot s.v. Rav Yehudah.
29. For a brief but fascinating study of the relationship between the verse itself and the law derived from it, see, Baruch Levine, "On Translating A Key Passage," *S'vara* 1:1, Winter 1990, pp. 71-73.
30. Ernest Weinrib, "Rescue and Restitution," *S'vara* 1:1, Winter 1990, pp. 59-65. For an outstanding and exhaustive treatment of this element of Jewish Law, see, Marilyn Finkelman, "Self-Defense and Defense Of Others In Jewish law : The Rodef Defense," *The Wayne Law Review*, Vol. 33, 1987, pp. 1257-1287.
31. Maimonides, *Mishneh Torah*, Book of Damages, Laws of Robbery and Lost Property, Chapter 11, Law.

At Home on the Earth: A Christian Ecological View of Human Beings

by Sallie McFague

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INTRODUCTION

Traditional Christian theology, including North American theology, has not taken the body seriously: Christianity has focused on saving souls, not on ministering to bodies. And yet Christianity is the religion of the incarnation, the religion of embodiment, as proclaimed in its central doctrines of christology (the word made flesh), the eucharist (the body and blood of Christ), and the church (the body of Christ). The refusal of Christianity to take seriously its own proclaimed incarnationalism—and even worse, its historical disparagement of bodies, especially the bodies of women as well as of the natural world—has contributed to our present ecological crisis.[1] Christian hierarchical dualism of spirit over flesh, male over female, and human beings over the natural world has been a factor in the Western utilitarian and imperialistic attitude toward the earth.[2] This attitude says Earth is here for our use and subject to our control. To be sure, Christianity is not alone responsible for the deterioration and destruction of our planet, and there are traditions within Christianity that support the well-being of creation; but Christianity has not preached a gospel of embodiment, has not proposed an earthly anthropology, and has not taught us to think of our planet as our home.

It should do so. It should, not only because our dying planet needs every helpful voice, but also because as the religion of the incarnation which proclaims that the *whole creation* is the theater of God's saving activity, the well-being of bodies of all sorts ought to be its basic belief. It should insist on the cosmological context for doing theology, which is one of the classic contexts along with two others, the psychological and the political.[3] The cosmological context is the oldest and broadest one and is being revived in present-day ecological theology. In the last few hundred years, however, this context has been narrowed to the psychological, which focuses on the redemption of individual human beings. In the past few decades various liberation theologies have insisted on the broader political context in order to address the needs and well-being of oppressed groups of people. We need now to widen the circle still farther to include all oppressed creatures as well as the deteriorating ecosystems that support all lifeforms, including human ones. The gospel of Jesus is proclaimed to the oppressed, to the poor: In our time *nature* is oppressed, *nature* is the new poor.

Thus justice and ecology issues join hands in a theology of embodiment. The focus is on bodies and their basic needs: food and water, shelter, companionship. An earthly theology, epitomized in the model of the world as God's body, claims that *bodies matter*, and whatever else salvation means, it starts with the needs of bodies, all the wonderful, various, strange, and beautiful bodies on our planet.[4] In this theology the needs of human bodies are central but not unique or absolute, for the entire creation, the whole world, is in God's hand. All bodies live and move and have their being in the body of God—a model that radicalizes Christian incarnationalism. God is Emmanuel—not only in Jesus of Nazareth but also in the flesh of our planet.

ANALYSIS: THE COMMON CREATION STORY AND OUR PLACE IN THE SCHEME OF THINGS

Turning Toward Nature

What does a Christian embodiment theology say about the place of human beings? How does it change how we think about ourselves, other creatures, and the earth? A brief meditation on space will help us to answer this question. An embodiment theology is a theology of space and place. It is a theology that begins with the body, each and every body, which is the most basic, primary notion of space: Each lifeform is a body that occupies and needs space. A theology of embodiment takes space seriously, for the first thing bodies need is space to obtain the necessities to continue in existence—food, water, air. Space is not an empty notion from an ecological perspective (empty space), but a central one, for it means the basic world that each and every creature inhabits. Finding one's niche (one's space), which will provide the necessities for life, is the primary struggle of all lifeforms, including human ones.

Space is an earthy, physical, lowly category unlike time, which is a peculiarly human, often mental, and sometimes grand notion.[5] In Christian thought space has often been connected with pagan fertility, earthy religions which celebrate the rebirth of life in the spring after its wintry death. The eternal return of Earth's physical cycle is contrasted with the historical movement toward the eschatological fulfillment of creation in the kingdom of God, a fulfillment beyond earthly joys. In space versus time, the old dichotomy of nature versus history is played out.[6] The bias of Western Christianity against nature now needs to be redressed: Space should become the primary category with which we think about ourselves and other lifeforms. Let us look at a few reasons why this ought to be the case.

First, space is a leveling, democratic notion which places us on a par with all other lifeforms. This is certainly not our only status, for as is becoming increasing evident and as this paper will underscore, we represent the self-conscious, responsible form of life on our planet with an awesome vocation to work for its well-being. But we need to begin our anthropology (who we are in the scheme of things) with the basics. The category of space reminds us that we all exist together in one space, our finite planet. Each and every different lifeform needs its own particular space and habitat in which to grow and flourish. This includes, of course, human beings who need not only food, water, and shelter, but also loving families, education, medicine, meaningful work, and some would include music, art, and poetry.

Spaces are specific and different for the billions of species on our planet; hence the notion of space helps us to acknowledge both the basic necessity of all lifeforms for space to satisfy their physical needs as well as the specific environments needed by these lifeforms, given their real differences. And yet all these differences and special needs must be satisfied within one overarching space, the body of our planet. We are united to one another through complex networks of interrelationship and interdependence, so that when one species overreaches its habitat, encroaching on that of others, sucking the available resources out of others' space, diminishment and death must occur at some point. This process (natural selection) has been going on since the beginning of the earth and has resulted in the rich, diverse planet we presently inhabit.

The issue now, however, is whether one species, our own, has encroached so heavily on the space, the habitats of other species, that serious imbalance has occurred. As the dominant species for several hundred years, we have forgotten the primary reality of planetary space: It is limited and therefore attention to the primacy of space for other lifeforms entails a levelling move toward egalitarianism. We need to remember that at a basic level all lifeforms are the same: all need a space for the basics of life.

The second reason we need to turn from a historical (temporal) to a natural (spatial) perspective is because space highlights the relationship between ecological and justice issues. The crisis facing our planet is, in a sense, a temporal one: How much time do we have left for preserving life in community? But the reason time matters is because we are misusing space. Theoretically, we have plenty of time, at least the five billion years of our sun's life, but we may only have a few hundred because of what we have done and continue to do to our plants, trees, water, and atmosphere. We are ruining the space; and when this occurs, justice issues emerge centrally and painfully.

When good space—arable land with clean water and air, comfortable temperatures, and shade trees—becomes scarce, turf wars are inevitable. Wars have usually, and not just accidentally, been fought over land, for land is the bottom line. Without good land, none of the other goods of human existence are possible. Where is the best land and who controls it? How much good space is left and who is caring for it? Justice for those on the underside, whether these be human beings or other vulnerable species, has everything to do with space. In a theology of embodiment, space is the central category, for if justice is to be done to the many different kinds of bodies that comprise the planet, they must each have the space, the habitat, they need.

The third reason we ought to focus on nature rather than history, on space rather than time, is that we need to realize that the earth is our home, that we belong here, that this is not only our space but our *place*. Christians have often not been allowed to feel at home on Earth, convinced after centuries of emphasis on otherworldliness that they belong somewhere else—in heaven or another world. That sojourner sensibility has faded with the rise of secularism, but it has not been replaced with a hearty embrace of Earth as our only and beloved home. Rather, many still feel, if not like aliens or tourists, at least like lords of the manor who inhabit the place but do not necessarily consider it their only, let alone beloved, home.

Christian theologies as well as works of spirituality have not encouraged meditation on the beauty, preciousness, and vulnerability of the earth and its many creatures. The profound ascetic strain within the tradition which has feared too close association with human bodies has extended this as well to other animals and the body of the earth. But what if we were not only allowed but encouraged to love the earth? What if we saw the earth as part of the body of God, not as separate

from God (who dwells elsewhere), but as the visible reality of the invisible God? What if we also saw this body as overlain by the body of the cosmic Christ, so that wherever we looked we would see bodies that are incorporated into the liberating, healing, inclusive love of God? Would we not then feel obliged to love Earth and all its many bodies? Would it not be the first duty of those who not only belong to the earth but know we belong to it? We *do* belong to the earth: It is not only our space, but our place, our beloved home.

Our meditation on space and place has suggested that we keep our eyes on the earth as we begin our theological anthropology. An embodiment anthropology must start with who we are as earthly, physical creatures who have evolved over billions of years.

Toward a Postmodern Theological Anthropology

Who are we in the scheme of things as pictured by contemporary science? Who are we simply as creatures of planet Earth, quite apart from our religious traditions? That is not a question Christians usually have asked, believing that theological anthropology had little relationship with so-called secular views of human nature. Failing to ask that question, however, has often meant that Christian reflection on human existence has been otherworldly: Human beings come off as a little lower than the angels—not fully human. We have not been seen as mundane, as being of this earth, of the earth, earthy. Our place and duties have been defined primarily in relationship to God (first great commandment) and secondarily in relationship to other human beings (second great commandment), but seldom in relationship to Earth, its creatures, and its care.

A first, sobering step, therefore, is to look at ourselves from the earth *up*, rather than from the sky *down*. The contemporary scientific picture of reality will by no means tell us all we need to know about ourselves, but it will give us a base in reality (as understood in our time) so that what more we say about ourselves, from the perspective of belonging to the body of God, will be grounded—literally rooted—in the earth.

As we begin this task, let us briefly describe the central features of the postmodern scientific view of reality. At its heart is the common creation story.[7] In broad strokes, the story emerging from the various sciences claims that some fifteen billion years ago the universe began with a big bang which was infinitely hot and infinitely concentrated. This explosion eventually created some hundred billion galaxies of which our galaxy, the Milky Way, is one, itself containing billions of stars including our sun and its planets. From this beginning came all that followed, so that everything is related, woven into a seamless network, with life gradually emerging after billions of years on our planet (and probably on others as well) and evolving into the marvelously complex and beautiful Earth that is our home. All things living and all things not living are the products of the same primal explosion and evolutionary history and hence are interrelated in an internal way right from the beginning. We are distant cousins to the stars and near relations to the oceans, plants, and all other living creatures on our planet.

We need to highlight several features of this story as we consider how it might help reformulate a postmodern theological anthropology, that is, who we are in the scheme of things. The world here is, first of all, the universe, beside which the traditional range of divine concern mainly with human subjects dwindles, to say the least. In this view, God would relate to the entire fifteen-billion-year history of the universe and all its entities and inhabitants, living and non-living. On the clock of the universe, human existence appears a *few seconds* before midnight. This suggests, surely, that the whole show could scarcely have been put on for our benefit; our natural anthropocentrism is sobered, to put it mildly. Nevertheless, since it took fifteen billion years to evolve creatures as complex as human beings, the question arises as to our peculiar role in this story, especially in relation to our planet.

A second feature of the new picture is its story character: It is a historical narrative with a beginning, middle, and presumed end, unlike the Newtonian universe which is static and deterministic. It is not a realm belonging to a king or an artifact made by an artist, but a changing, living, evolving event with billions of smaller events making up its history. In our new cosmic story, time is irreversible, genuine novelty results through the interplay of chance and law, and the future is open. This is an unfinished universe, a dynamic universe, still in process. Other cosmologies, including mythic ones such as Genesis and even earlier scientific ones, have not been historical, for in them creation was finished. At the very least, this suggests that in our current picture God would be understood as a continuing creator; but of equal importance, we human beings might be seen as partners in creation, as the self-conscious, reflexive part of the creation that could participate in furthering the process.

A third characteristic of the common creation story is the radical interrelatedness and interdependence of all aspects of it, a feature of utmost importance in the development of an ecological sensibility. It is one story, a common story, so that everything that *is* traces its ancestral roots within it; and the closer in time and space entities are, the closer they are related. The organic character of the universe in no sense, however, supports a leveling or simplifying direction, that is, a lack of

individuation. Precisely the opposite is the case. Whether one turns to the macrocosm or the microcosm, what one sees is an incredibly complex, highly individuated variety of things, both living and non-living. No two things, whether they be exploding stars or the veins on two maple leaves, are the same: Individuality is not just a human phenomenon—it is a cosmic one.

At the same time, however, the exploding stars and the veins on the leaves are related through their common origin and history. The implications of this feature of the universe for theological anthropology are immense. The common character of the story undercuts notions of human existence as separate from the natural, physical world; or of human individuality as the only form of individuality; or of human individuals existing apart from radical interdependence and interrelatedness with others of our own species, with other species, and with the ecosystem. Were this feature of the scientific picture to become a permanent and deep aspect of our sensibility, it would be the beginning of an evolutionary, ecological, theological anthropology that could have immense significance in transforming how we think about ourselves as well as our relations and responsibilities toward other human beings, other species, and our home, planet Earth.

A fourth feature is the multileveled character of the universe, from the flow of energy in subatomic reality to the incredibly complex set of levels that comprise a human being. One critical aspect of this complexification is increasing subjectivity or the ability to experience and feel. Whatever one might or might not want to say about subjectivity in atoms or rocks, it surely increases as one progresses to animals and its present culmination in human self-consciousness. This means that there is no absolute distinction between the living and the non-living, for life is a type of organization, not an entity or substance. Thus, as Ian Barbour puts it, "The chemical elements in your hand and in your brain were forged in the furnaces of the stars."[8] What is significant, however, for a theological anthropology is not only the continuity from the simplest events in the universe to the most complex, but also their inverse dependency, which undercuts any sense of absolute superiority. That is, the so-called higher levels depend on the lower ones rather than vice versa.

This is obviously the case with human beings and plants; the plants can do very nicely without us, in fact, better, but we would quickly perish without them. But it is also the case with aspects of our earth that we have until recently taken for granted, such as clean air and water. This very important point needs to be underscored: *The higher and more complex the level, the more vulnerable it is and dependent upon the levels which support it.* For theological anthropology, this is a very sobering thought, especially for a tradition that has been accused of advising human beings to subdue and have dominion over all other created beings. It has profound implications for reconceiving the place of human beings in the scheme of things.

Finally, the common creation story is a public one, available to all who wish to learn about it. Other creation stories, the cosmogonies of the various world religions, are limited to the adherents of different religions. Our present one is not so limited, for any person on the planet has potential access to it and simply as a human being is included in it. This common story is available to be remythologized in different ways by any and every religious tradition and hence is a place of meeting for the religions, whose conflicts in the past and present have often been the cause of immense suffering and bloodshed as belief is pitted against belief. Moreover, the common story itself can be enriched by various ancient, organic creation stories. What this common story suggests is that our primary loyalty should be not to nation or religion, but to the earth and its creator (albeit that creator would be understood in different ways). We are members of the universe and citizens of planet Earth. Again, were that reality to sink into human consciousness all over the world, not only war among human beings but ecological destruction would have little support in reality. This is not to say that they would disappear, but those who continued in such practices would be living a lie, that is, living in a way out of keeping with reality as currently understood.

RECONSTRUCTION: SIN—THE REFUSAL TO ACCEPT OUR PLACE IN THE SCHEME OF THINGS

Who are we, then, according to the common creation story? According to the major characteristics of that story, human beings are radically other than what either the Christian tradition, especially since the Reformation, claims we are or what secular, modern culture allows. These two views differ in critical ways, with the religious picture focusing on the importance of those human beings who accept Jesus Christ as savior, whereas the secular picture elevates individualism, consumerism, and technology. In both cases, the focus is on human beings, especially in terms of individual well-being. In light of the common creation story, however, this is a narrow vision indeed. Yet it is so profoundly a part of the post-Enlightenment consciousness that we, for the most part, accept it as natural, that is, as the proper order of things.

Decentering and Recentering Human Life

According to postmodern science, the religious/secular/modern picture of human reality is a lie, a very large and dangerous lie. According to the common creation story, we are not the center of things by any stretch of the imagination, although in a curious reversal, we are increasingly very important. That is, even as the sense of our insignificance deepens when we see our place in an unimaginably old and immense universe, nonetheless, at least on our tiny planet at this time, because of the wedding of science and technology, we are in a critically important position. We have the knowledge and power to destroy ourselves as well as many other species *and* we have the knowledge and the power to help the process of the ongoing creation continue. This means, in a way unprecedented in the past, we are profoundly responsible.

The several characteristics of the common creation story we have highlighted suggest, then, a *de*centering and a *re*centering of human beings. From this story we learn that we are radically interrelated with and dependent on everything else in the universe and especially on our planet. We exist as individuals in a vast community of individuals within the ecosystem, each of which is related in intricate ways to all others in the community of life. We exist with all other human beings from other nations and religions within a common creation story that each of us can know about and identify with. The creation of which we are a part is an ongoing, dynamic story which we alone (we believe) understand and, therefore, have the potential to help continue and thrive or let deteriorate through our destructive, greedy ways. Our position in this story is radically different from, for instance, the king/realm story, one of the major models in Western religion. We are decentered as the only subjects of the king and recentered as those responsible for both knowing the common creation story and helping it to flourish. In this story we feel profoundly connected with all other forms of life, not in a romantic but in a realistic way. We *are* so connected, and hence we had better *live* as if we were. We feel deeply related, especially to all other human beings, our closest relatives, and realize that together we need to learn to live responsibly and appropriately in our common home.

In light of this story it is obvious that the model of the human being seeking its own individual salvation, whether through spiritual or material means, is not only anachronistic to the postmodern sense of reality, but it is dangerous. We need to think holistically and not just in terms of the well-being of human beings. We need to move beyond democracy to biocracy, seeing ourselves as one species among millions of other species on a planet that is our common home.[9] This is not the only context in which we need to view ourselves, but it is an important, neglected perspective. Our loyalty needs to move beyond family, nation, and even our own species to identify, in the broadest possible horizon, with all life: We *are* citizens of planet Earth.

A Deeper Understanding of Sin

The sense of place—proper and improper—is one of the most important insights that theological reconstruction can gain from the common creation story.[10] We need, then, to delve more deeply into this issue of living a lie, living out of keeping with reality—in other words, sin. The common creation story helps us here because it gives us a functional cosmology, a working cosmology. It gives us a way of understanding where we fit. It tells us that we belong and where be belong. It is both a welcoming word celebrating our grandeur as the most developed, complex creatures on our planet to date and a cautionary word reminding us that we belong in *a* place, not all places, on the earth. In the words of James Gustafson, human beings are thus reminded of "their awesome possibilities and their inexorable limitations."[11]

The Genesis myth no longer functions for most people as a working cosmology, a framework providing a sense of both space and place, grandeur and groundedness, possibilities and limitations, for the conduct of daily living. The Genesis myth, rich and profound as it still can be shown to be, does not strike most people as a working model or construct within which the ordinary events and details of their lives can be understood. Moreover, the creation story that does function, at least implicitly, in Western culture is one heavy with otherworldly overtones, seeing human beings as resident aliens on the earth. But a creation story that has for many people immediate credibility upon first hearing is the common creation story:

> So this is where I, we, fit, not as a little lower than the angels but as an inspirited body among other living bodies, one with some distinctive and marvelous characteristics and some genuine limitations. I am of the earth, a product of its ancient and awesome history, and I really and truly belong here. But I am only one among millions, now billions, of other human beings, who have a place, a space, on the earth. I am also a member of one species among millions, perhaps billions, of other species that need places on the earth. We are all, human beings and other species, inhabitants of the same space, planet Earth, and interdependent in intricate and inexorable ways.

> I feel a sense of comfort, of settledness, of belonging as I consider my place in this cosmology but also a sense of responsibility, for I know that I am a citizen of the planet. I have an expanded horizon as I reflect on my place in the common creation story: I belong not only to my immediate family or country or even my species, but to the earth and all its lifeforms. I *do* belong to this whole. I know this now. The question is, Can I, will I, *live* as if I did? Will I accept my proper place in the scheme of things? Will *we*, the human beings of the planet, do so?

This little meditation suggests that the common creation story, in giving us a functional cosmology, also gives us a grounded or earthly understanding of sin. One of the advantages of starting our reflections on human existence, with our possibilities and limitations as seen in light of the common creation story, is that it keeps them from being either overstated or spiritualized. In this story we are not a little lower than the angels, nor the only creatures made in the image of God: Our particular form of grandeur is in relation to the earth and derived from it—we are the self-conscious, responsible creatures.

Likewise, in the common creation story we are not sinners because we rebel against God or are unable to be sufficiently spiritual: Our particular failing (closely related to our peculiar form of grandeur) is our unwillingness to stay in our place, to accept our proper limits so that other individuals of our own species, other individuals of other species, as well as other complete species can also have needed space. From the perspective of the common creation story, we gain a sober, realistic, mundane picture of ourselves: Our grandeur is our role as responsible partners helping our planet prosper, and our sin is just plain old selfishness—wanting to have everything for ourselves.

What is the relation of this ecological view of sin to the classical Christian view? It both deepens and grounds it. The classical view can be summarized with the phrase "living a lie," living out of proper relations with God, self, and other beings. Sin, in the Hebrew and Christian traditions, is a relational notion, having to do with the perversion of fitting, appropriate attitudes and actions in relation to other beings and the source of all being. Sin is, therefore, thinking, feeling, and acting in ways contrary to reality, contrary to the proper, right relations among the beings and entities that constitute reality.

An autobiographical note might clarify the point. When I was first introduced to Christian theology as a college student, I recall being deeply impressed with its view of sin—it struck a chord of authenticity in me—while I remained unmoved by the various traditional interpretations of redemption. The classical understanding of sin focuses on wanting to be the center of things and I already knew and knew deeply that longing. Augustine calls it "concupiscence," literally sexual desire but more broadly it is wanting to have it all, whatever the all is—that is, sin is limitless greed. As a privileged member of the world's elite, I was an easy target for this view of sin. While as a female in the American fifties I perhaps lacked an overbearing sense of my self worth—or sin as pride—by class and race I fitted the pattern of the voracious Western appetite for more than my share: I was an *ecological* sinner. The Augustinian view, in focusing on the bloated self—the self that wants it all, the self that refuses to share—highlights the ecological dimension of sin. From this perspective, selfishness is the one-word definition of sin—at least for us First World types.[12]

The common creation story deepens and grounds this view of sin because it forces us, as a first step, to apply it to our relations with other members of our own species, other species, and the natural world that is our common home. It advises us to ask, What does selfishness mean in relation to other human beings? What does the refusal to share mean in relation to other animals? What does our unwillingness to stay in our proper place, our space, mean in relation to nature?

Us versus Us: Living a Lie in Relation to Other Human Beings

The evidence of disproportionate space and place of some human beings in contrast to others—the rich and poor within nations and between nations—is everywhere and growing.[13] If the most basic meaning of justice is fairness, then from an ecological point of view, justice means sharing the limited resources of our common space. From the perspective of the one home we all share, injustice is living a lie, living contrary to reality, pretending that all the space or the best space belongs to some so that they can live in lavish comfort and affluence, while others are denied even the barest necessities of physical existence. The disproportion here, epitomized in the billionaires versus the homeless, the standard of living of the First World versus the Third World countries, the swollen stomachs of starving people versus obesity in others, forces us to think concretely and physically about sin.

The common creation story deepens the classical view of right relations with regard to members of our own species. It suggests that "loving thy neighbor" must be grounded in mundane issues of space, turf, habitat, land. Every human being needs an environment

capable of supporting its sustenance and growth. While this might at first glance appear to be a minimalist view, reducing human beings to the physical level, it is precisely the minimum that those individuals and nations bloated with self, living the life of insatiable greed, refuse to recognize. It is far easier as well as less costly to one's own lifestyle to offer spiritual rather than material goods to the poor. The ecological view of sin refuses to raise its eyes above the minimalist view, insisting that justice among human beings means first of all adequate space for basic needs. It also means, for some, staying in their own proper, limited place.

The issue on which to focus when we consider justice versus ecological issues is not our species versus other species (the rights of humans versus the rights of other animals), but *some members* of our species versus other members. While it is certainly the case that the human population is too large and encroaches on the habitats of other species, lumping human beings all together as *the* ecological problem masks the profound justice issues within our own population. Those to whom this lecture is addressed—we relatively well-off Westerners—need to admit that the first lie we live is in relation to others of our own kind. *The* ecological sin is the refusal of the haves to share space and land with the have-nots.

Human populations tend to stabilize when the standard of living improves; hence, the problem is not only our gross numbers, but also the disproportionate way in which space is controlled by some humans to the disadvantage of others. Over the long haul, stabilizing the human population at a sustainable level is primarily a justice issue among human beings. Thus justice issues *within* the human species have a direct effect on environmental issues between our species and other species. Simply put, we need to do some housecleaning as a first step. Until we rectify gross injustices among human beings—in other words, begin our ecological work at home—we will have little chance of success abroad, that is, in relation to other species and the planet as a whole.

Us versus Them: Living a Lie in Relation to Other Animals

The ecological view of sin deepens when we realize that other animals, beside human ones, must have space, that they too have a place. While the model of the universe as God's body tells us that we are united with the physical bodies of all other animals, the common creation story gives detail and depth to this statement. While there are tens of billions of known kinds of organic molecules, only about fifty are used for the essential activities of life. Molecules are essentially identical in all plants and animals. "An oak tree and I are made of the same stuff. If you go back far enough, we have a common ancestor."[14] If some degree of intimacy is true of us and oak trees, it is astonishingly true of us and other animals. We not only *are* animals but we are genetically very similar to all other animals and only a fraction of difference away from those animals, the higher mammals, closest to us. And yet one would scarcely suspect this from the way animals are conventionally regarded as well as used in our culture. While most people now have or pretend to have a raised consciousness in regard to the needs of all human beings for the basic necessities of life, the same cannot be said for attitudes about other animals. This is not the place for a review of human use and misuse of animals as manifest in pleasure hunting, excessive meat eating, the fur trade, circuses and traditional zoos, vivisection, cosmetic animals testing, and so on.[15] But even listing a few of our more callous practices with regard to animals illustrates our degree of insensitivity to their needs, wishes, and feelings. In fact, it is by suppressing any thought that they might have needs, wishes, or feelings, in other words, that they are *anything like us* (or we like them—the more valid evolutionary comparison) that we can continue such practices with good consciences or at least with numbed ones.

What does it mean to live a lie in relation to other animals? What is ecological sin with regard to them? The common creation story helps us answer this question most specifically by providing a realistic picture of who we are in relation to other animals, both our profound intimacy with them and our important differences from them. We recall that one of the special features of this story is the way both unity and diversity is understood: the interrelationship and interdependence of all living things *and* distinctive individuality and differences among living forms.

The common creation story helps us to move into a new paradigm for responding to our fellow animals, one in which we appreciate the network of our interdependence with them as well as their real differences from us. In the conventional model, the model that views them as resources or recreation, as something to serve us or amuse us, we can appreciate neither their profound closeness nor our genuine differences; they are simply "other." The new paradigm, however, presses us into a much more complex, highly-nuanced relationship with other animals, one that refuses either a sentimental fusion or an absolute separation. In this paradigm we are neither "a species among species" nor "the crown of creation."

Who, then, are we? We are like other animals in complex ways; we are also different from them—and they from one another—in complex ways.[16] We have simplified our relationship with other animals by focusing on one human characteristic, a kind of rationality

divorced from feeling, which has allowed us to put ourselves on top with other animals as inferior to us and radically different from us. The operating model here is the ladder, with rationality at the top and ourselves as its sole possessor. Everything that does not possess rationality is alien, including our own feelings and bodies as well as other animals, plant life, and the earth. But what if the evolutionary model were the bush rather than the ladder, a model much closer to what the common creation story tells us? A bush does not have a main trunk, a dominant direction of growth, or a top. There is no privileged place on a bush; rather, what a bush suggests is *diversity* (while at the same time interconnectedness and interdependence since all its parts are related and all are fed by a common root system). The bush model helps us to appreciate different kinds of excellence, each of which is an end in itself. In this model other animals are not defined by their *lack* of rationality. "Is there nothing to a giraffe except being a person *manqué*?"[17] Or the same point, asked positively: Would a dolphin think that we could swim, a dog be impressed with our sense of smell, or a migrating bird with our sense of direction?[18] We are profoundly and complexly united with other animals as well as profoundly and complexly different from them and they from each other.

Our most important difference is not perhaps our grand rationality but a more humbling trait, one that we share with young children and one that the poets and artists among us retain into adulthood: our ability to wonder. We are the creatures who *know* that we know. Many creatures know many things; intelligence is not limited to human beings. But the ability to step back, to reflect on *the fact that* we know and *what* we know—in other words, self-consciousness—may well be our peculiar speciality. As Annie Dillard notes, "The point is that not only does time fly and...we die, but that in these reckless conditions we live at all, and are vouchsafed, for the duration of certain inexplicable moments, to know it."[19] To live at all and to know it—these are the roots of wonder. It is a wonder to be alive, but it is a deeper wonder to know it. Knowing that we know places special possibilities as well as special responsibilities on us. Self-consciousness is the basis of free will, imagination, choice, or whatever one calls that dimension of human beings making us capable of changing ourselves and our world. In relation to other animals, our ability to wonder, to step back and reflect on what we know, places us in singular position: Our place in the scheme of things may well be to exercise this ability. We are the ones, the only ones we believe, who know the story of life and the only ones who know that we know, the only ones capable of being filled with wonder, surprise, curiosity, and fascination by it. A first step, then, toward a healthy ecological sensibility may well be a return, via a second naivete, to the wonder we had as children at the world, but a naivete now informed by knowledge of and a sense of responsibility for our planet and its many lifeforms.[20] We know that we know; we have a choice to act on behalf of the wonderful life that we are and that surrounds us.

Living a lie in relation to other animals, then, is pretending through numbed consciences that they are so totally unlike us that they do not need space, places, to eat and rest and raise their young, to run and fly and swim and do all the other wonderful things that each one does so well. Living a lie in relation to them also means refusing to accept our special difference from them: our ability to know the common creation story that unites us all and that we alone can become partners in helping to continue.

Us versus It: Living a Lie in Relation to Nature

John Muir, the eminent American naturalist, wrote at the end of his life: "I only went out for a walk and finally concluded to stay until sundown, for going out, I discovered, was actually going in."[21] This is a summary statement of a lifelong conversion to the earth, the realization that one *belongs* to Earth. It is not natural for most of us to believe, let alone feel, that we belong to nature, to realize that by going out one is actually going in. Susan Griffin, poet and ecofeminist, eloquently expresses our complex in and out relationship with nature: "We know ourselves to be made from this earth. We know this earth is made from our bodies. For we see ourselves. And we are nature. We are nature seeing nature.[22] We are nature with a concept of nature. Nature weeping. Nature speaking of nature to nature." We are the self-conscious ones who can think about, weep for, and speak of nature, but we are also one in flesh and blood with nature. It is this dual awareness of both our responsibility for nature and our profound and complex unity with it that is the heart of the appropriate, indeed necessary, sensibility that we need to develop.

The proper balance of this dual awareness in relation to nature, specifically the earth, the land, may be even more difficult than in relation to other people and other animals, for we have a clearer notion of the ways we are both united to and distinct from them than we do with such things as oceans, plants, and land. For most Westerners the tendency is to objectify nature so totally that human beings are essentially distinct from it. One way to overcome this is to enlarge our sense of self—that is, what we include in our definition of who we are.[23] A narrow self-definition includes only one's nearest and dearest: family and friends, or at most, one's tribe or nation. A broader self-definition takes in not

only all people but some of the higher or more interesting animals (at least the poster ones such as baby seals, panda bears, and snowy egrets). But a cosmological or ecological self-definition acknowledges that we are part and parcel of everything on the planet or, as Alan Watts puts it, "The world is your body."[24]

Only as we are able both to think and feel this enlarged definition of self will we be able to begin to respond appropriately and responsibly to the crises facing our planet. We need to be radicalized into a new way of looking at the earth in which we are decentered as masters, as crown, as goal and begin to feel empathy in an internal way for the sufferings of other species and even for Earth itself. As Aldo Leopold comments, "For one species to mourn the death of another is a new thing under the sun."[25] It is indeed new and requires an expanded self-identification, a sense that I care about another species in a way analogous to the way I care about those near and dear to me. I do not merely regret the loss, but I feel and weep for it. Can we also expand this sense of self to include ecosystems and even the planet? When we read of the pollution of the oceans or the destruction of rain forests, do we feel grief for Earth itself, for that beautiful blue-green living marvel of a planet spinning alone in space?

We are *a part* of the whole, and we need to internalize that insight as a first step toward living truthfully, rightly, on our planet. But we need more than a sense of oneness with the earth to live appropriately on it. An environmental ethic in regard to nature—the land, ecosystems, the planet—must be based on knowledge of and appreciation for the intrinsic and particular differences of various species, biotic regions, oceanic ecosystems, and so on. We need to learn about these differences and make them central in our interaction with the environment.

A sense of oneness with the planet and all its lifeforms is a necessary first step, but an *informed* sensibility is the prerequisite second step. Leopold is on the right track when he tells us that we need a "land ethic," an ethic toward the land that no longer sees it as mere property, entailing privileges but no responsibilities. A land ethic which aims "to preserve the integrity, stability, and beauty of the biotic community" is an example of living appropriately on the land, refusing to live the lie that we are the conquerors, the possessors, the masters of the earth.[26] A land ethic deals with the issue of space—the primary issue for an environmental anthropology—in its broadest and deepest context. The space, *the ultimate space*, as it were, that we *all* share, comprises the planet's land, oceans, and atmosphere. The complex question facing us is how to share this space with justice and care for our own species, other species, and the ecosystems that support us all. How can we live with others that inhabit this space appropriately and justly, realizing that we have *a* place but not *all* places, that we need space but cannot have the whole space?

Our reflection on sin in three contexts—as living a lie in relation to others of our species, other animals, and nature—has highlighted space as a central category for an ecological anthropology. In each case, we have insisted that attention to *difference*, while at the same time acknowledging and *feeling* our profound unity with these others, is central.

PRAXIS: A NEW PLACE FOR HUMANITY

A new way of being in the world begins to emerge from our reflections on our place in the scheme of things as pictured by the common creation story. We have been decentered as the point and goal of evolutionary history; hence, ecological sin means living as if we were the center, denying space and place to other human beings, other species, and the ecosystems of the planet. But that same history suggests, in the words of biologist Stephen Jay Gould, a recentering for us as "the stewards of life's continuity on earth."[27] We have arrived at these conclusions by looking at ourselves from the pedestrian, mundane, Earth-up perspective, by seeing ourselves as part of the profound, intricate kind of unity that characterizes the contemporary organic model of reality as well as the special sort of difference that distinguishes us from other beings on the planet. The new place for humanity,however, is not only a product of who we are in the common creation story: it is also for Christians qualified by the liberating, healing, and inclusive love of Christ. This identification presses us beyond stewardship of life on Earth to solidarity with all Earth's creatures, especially the vulnerable. The Christic shape for humanity is built upon our evolutionary distinction, but is also a radical intensification of it.

To be stewards of life's continuity on Earth and partners with God in solidarity with the oppressed is an awesome vocation, a far higher status than being a little lower than the angels or subjects of a divine king or even the goal of evolutionary history. We now realize that our knowledge of the common creation story and where we fit into it means that we are responsible for taking evolution to its next step, one in which we will consciously bond with other human beings and other lifeforms in ways that will create a sustainable, wholesome existence for the rich variety of beings on our planet. To be stewards of life on our planet and, even more, to side with the oppressed lifeforms on earth, is a sublime, formidable, and baffling vocation for mere human beings. It is not one we probably would have

chosen, but it has been thrust upon us as the self-conscious ones.

We need to recall, however, that we are not the creators or redeemers of creation, only the stewards and partners of the creator and savior. Christians believe that efforts on behalf of the planet are not ours alone but that the source and power of life in the universe is working in and through us for the well-being of all creation, including our tiny bit of it. A reading from a lover of the planet, novelist Alice Walker, has given me courage as I think about our new vocation and I share it in closing.

> Helped are those who love the Earth, their mother, and who willingly suffer that she may not die; in their grief over her pain they will weep rivers of blood, and in their joy in her lively response to love, they will converse with trees. . . .
>
> Helped are those who find the courage to do at least one small thing each day to help the existence of another—plant, animal, river, human being. They shall be joined by a multitude of the timid.
>
> Helped are those who lose their fear of death; theirs is the power to envision the future in a blade of grass.
>
> Helped are those who love and actively support the diversity of life; they shall be secure in their differentness.
>
> Helped are those who *know*.[28]

We *do* know, and we ask for help.

Notes

1. See the work of Margaret Miles, especially *Practicing Christianity: Critical Perspectives for an Embodied Spirituality*. New York: Crossroad, 1988. Also *Carnal Knowing: Female Nakedness and Religious Meaning in the Christian West*. Boston: Beacon Press, 1989.
2. Lynn White in his famous essay titled "The Historical Roots of Our Ecological Crisis" puts this case strongly, though others have qualified it. See Wesley Granberg-Michaelson, ed., *Ecology and Life: Accepting Our Environmental Responsibility*. Waco: WordBooks, 1988.
3. For an analysis of these three contexts, see George S. Hendry, *Theology of Nature*. Philadelphia: Westminster Press, 1980, Chapter 1.
4. For a fuller treatment of this model, see Chapter 3 of my book, *Models of God: Theology for an Ecological Theology*. Minneapolis: Fortress Press, 1987. Also *The Body of God: An Ecological Theology*, to be published by Fortress Press in the spring of 1993.
5. One of the few contemporary theologians to deal with space is Jurgen Moltmann. See Chapter 6 of *God in Creation: A New Theology of Creation and the Spirit of God*. San Francisco: Harper and Row, 1985.
6. The dichotomy is certainly not absolute, for history takes place in nature and nature itself has a history, as the common creation story clearly demonstrates, but for the past several hundred years at least, the focus and preference of Western thought has been on history to the detriment of nature. The importance of time and history in relation to evolutionary development, both biological and cultural, can scarcely be overstated: We *are* everything is, only as it has become and is becoming through the complex machinations of temporal development. However, since this lecture deals with bodies and their most basic needs, it will focus on a neglected necessity for bodies: space.
7. Over the past decade or so, a large number of books have appeared written for the educated layperson giving various aspects of this story. Here are a few of them: Robert K. Adair, *The Great Design: Particles, Fields, and Creation* (New York and Oxford: Oxford University Press, 1987; John D. Barrow and Joseph Silk, *The Left Hand of Creation: The Origin and Evolution of the Expanding Universe* (New York: Basic Books, 1983); Marcia Bartusiak, *Thursday's Universe: A Report from the Frontier on the Origin, Nature and Destiny of the Universe* (Redmond, Wash.: Tempus, 1986); Paul Davies, *The Cosmic Blueprint: New Discoveries in Nature's Creative Ability to Order the Universe* (New York: Simon and Schuster, 1988); Freeman Dyson, *Infinite in All Directions* (New York: Simon and Schuster, 1988); George B. Field and Eric J. Chaisson, *The Invisible Universe: Probing the Frontiers of Astrophysics* (Boston: Birkhauser, 1985); Stephen Jay Gould, *Wonderful Life: The Burgess Shale and the Nature of History* (New York: W.W. Norton and Company, 1989) as well as many other writings; Stephen Hawking, *A Brief History of Time: From the Big Bang to Black Holes* (New York: Bantam Books, 1980); Alan Lightman, *Ancient Light: Our Changing View of the Universe* (Cambridge: Harvard University Press, 1991); James Trefil, *The Moment of Creation: Big Bang Physics From Before the First Millisecond to the Present Universe* (New York: Basic Books, 1983).
8. See Ted Peters, ed., "Creation and Cosmology," *Cosmos as Creation: Theology and Science in Consonance*. Nashville: Abingdon Press, 1989, p. 147.
9. See Thomas Berry, *The Dream of the Earth*. San Francisco: Sierra Club Books, 1988, p. 161.
10. The notions of "where we fit" and "proper place" in the scheme of things are *not* meant to support, in any fashion, cultural stereotypes of subservience and quietism, as when certain ethnic groups or children are told to "know their place" or "keep their place." Rather, the concept of limited space and a proper place for human beings vis-a-vis other species (as well as other members of our own species) carries the connotation of not taking more than one's share; the implication is of justice for all, not the subservience of some.
11. Gustafson, *Ethics from a Theocentric Perspective*, Vol. 1, Theology and Ethics. Chicago: University of Chicago Press, 1981, pp. 96-97.

12. To say that sin is selfishness does not entail claiming that righteousness is selflessness. Traditional understandings of sin as pride fail, as Valerie Saiving pointed out in her classic essay over thirty years ago, to acknowledge women's problem of a lack of self in our society. See Carol P. Christ and Judith Plaskow, ed., "The Human Situation: A Feminine View," *Womanspirit Rising: A Feminist Reader*. San Francisco: Harper and Row, 1979, pp. 25-42.

13. "The global balance-sheet is sobering. Since the 1972 United Nations Conference on the Human Environment the gap in living standards between the world's rich and poor has steadily grown. Industrialized countries and some parts of the developing world have prospered, but a billion people live in absolute poverty. Per capita income in the world's forty-one poorest countries is well below $300, a sharp contrast to the $14,500 average of developed market-economy countries. Some 70 percent of the world's income is produced and consumed by 15 percent of the population." From the Foreword to *Notes to Speakers*, Earth Summit '92: The United Nations Conference on Environment and Development. New York: United Nations Department of Information, 1991.

14. Carl Sagan, *Cosmos*. New York: Random House, 1980, p. 34.

15. See Tom Regan, ed., *Animal Sacrifices: Religious Perspectives on the Uses of Animals in Science*, 1986. Also Tom Regan, *The Case for Animal Rights*. Berkeley: University of California Press, 1983. Also Carol J. Adams, *The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory*. New York: Continuum, 1991.

16. One highly interesting, provocative analysis of our relationship with other animals—and one to which I am indebted—is in the various writings of Mary Midgley. See *Animals and Why They Matter*. Athens: The University of George Press, 1983. Also *Beat and Man: The Roots of Human Nature*. Ithaca: Cornell University Press, 1978. Also *Evolution as a Religion: Strange Hopes and Stranger Fears*. London: Metheun and Co., 1985.

17. Midgley, *Animals and Why They Matter*, p. 358.

18. Ibid., p. 225ff.

19. Dillard, *Pilgrim at Tinker Creek: A Mystical Excursion into the Natural World*. New York: Bantam Books, 1974, p. 81.

20. The phrase "second naivete" is Paul Ricoeur's and refers to the possibility of returning to the most basic roots of our being by a conscious, informed route when intuitive acceptance found in our own youth and the youth of the human community is no longer possible for us.

21. As quoted by Bill Devall and George Sessions, *Deep Ecology: Living as if Nature Mattered*. Salt Lake City: Peregrine Smith Books, p. 205.

22. Griffin, *Made From This Earth: An Anthology of Writings*. New York: Harper and Row, 1982, p. 343.

23. See analysis of this concept by Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism*. Boston: Shambhala Publications, 1990, Chapter 8.

24. As quoted by J. Baird Callicott and Robert Ames, ed., in the Introduction to *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy*. Albany: SUNY Press, 1989, p. 62.

25. Leopold, *A Sand County Almanac and Sketches Here and There*. New York: Oxford University Press, 1949, p. 110.

26. Ibid., pp. 224-25.

27. Gould, *The Flamingo's Smile: Reflections in Natural History*. New York: W.W. Norton and Co., 1985, p. 431.

28. Walker, "The Gospel According to Shug," *The Temple of My Familiar*. New York: Simon and Schuster, 1989, pp. 288-89.

Buddhist Views on the Environmental Crisis

by Robert Thurman

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All of you are familiar with the statue of the Buddha, the icon of the Shakyamuni Buddha, the founder of Buddhism. It is so widely known—a major statue with the Buddha in his usual position. You are familiar with the fact that he puts one hand here [gestures to the ground] with his legs crossed, and one hand on his knees; you all know this is called the Earth-Touching Gesture.

There's a story behind this. The reason this is the common icon of the Buddha is that it is considered to be the gesture he was making just prior to the achievement of his final enlightenment. The story that goes with it is the story of the Buddha's conversation with the Devil. The Devil, whose name is Mara in India, is trying to stop the Buddha from obtaining enlightenment, because when a Buddha obtains enlightenment a lot of things go well with the world, and Mara likes things to go wrong! His favorite time is when things are going wrong! So Mara wants to stop the Buddha from obtaining enlightenment, and he tries aggression. He tries to stir up the Buddha's greed, and these things fail. He tries to talk him out of obtaining enlightenment in various ways, very much like the Christ story in Gethsemane when he's being offered Kingdoms and things. But Mara doesn't bother to try Kingdoms because he knows the Buddha threw away a Kingdom to start with—Buddha started out as a King. But what he does try is tricking the Buddha. He says, basically, "Who are you to be a Buddha? What is this? What are you trying to be a Buddha for? Nobody asked you to be Buddha and know everything, help the whole Universe, save all living beings and transform this land of suffering into a land of bliss and happiness. Who asked you? What right do you have to be Buddha?"

The Buddha had just been in samadhi during this time, in contemplations where he came to an understanding of all beings' infinite past histories. In other words, he became clairvoyant about the former lives, as they would say in Buddhism, former lives of not only himself but all other beings, as well. So he could clearly see Mara's former lives. He looked at Mara and said, "Well, by what right are you the King of the Maras? Why are you highest of the Devils? The Lord of the Devils? I can tell you it's because one day when you were a young Devil, you were down there torturing some people in Hell, and one of your fellow torturers was thirsty. You were about to go over to the water-fountain, in between torturing, and you noticed him. You shared your cup of water with your fellow Devil. From this tiny moment of empathy about his state of thirst, from this tiny bit of sensitivity to someone else other than yourself, from this merit, slowly developed over many lives, you became King of all the Devils. In other words, relevant to other devils, you became Top Devil!"

The Devil recognized the validity of this and said, "So, I am the King of the Devils, and you are my witness. I have the right to be the King of the Devils by my past actions in previous evolutions. Who is your witness?" He asked, "You can say you have a right, but I don't see that you have any witness to your right!"

The Buddha said, "Well, I have a witness. The reason I have the right to be Buddha is because in millions of former lives, from beginning-less time, but specifically since the time I became a Bodhisattva, as they call it—a being who is beginning to move out of the self-centered awareness which is the form of ignorance that seems to be the cause of the problem—from this time on I began to give my life, my blood, my property, my merit, my relatives, whatever it was that I could do, whatever being who asked me, I gave it. And I did it millions of times."

Here the Buddha was referring to the *Jataka Tales*—the earliest known folk stories in history—Walt Disney-like stories which were circulating in India at the time. These stories were allegorical tales of the Buddha's past lives told using animals depicting Buddha's spiritual evolution. For example in one *Jataka* tale, the Buddha was a bunny who made a deal with the other bunnies and altruistically gave himself to a hungry traveler for dinner—hopping right into the frying pan saying, "Here's your dinner, some bunny stew!" Or the Buddha as Lassie who went out and saved a chipmunk! Buddha was many different animals in the *Jataka Tales*. Once he was engaged in battle with demons. In this story he was running away from the demon-astronauts who were

anti-Gods, because his own God army was temporarily out to sea. He was running through a grove on the slopes of a heavenly mountain—the slopes of Olympus, an Indian Olympus, when he saw that his chariot pole was about to knock down a nest in which a bunch of small eagles were hatching. So he made his charioteer pull off the road and the charioteer said, "Wait! The anti-Gods are coming. You're going to get killed!"

"Yea," he said, "But those birds are not in this battle. They're not in this war. We're not going to knock them off. So turn around and we'll go back the other way." So they turned the chariot around and when the anti-Gods saw a lone chariot coming back, they thought a whole horde of Gods was on the horizon! This is another former-life tale, for example. I like that one because the moral of the story is so incidental to the main action of the story, and yet it has the merit of saving the lives of those little birds who were not involved in the war. Then, of course, he went off and killed a bunch of these anti-Gods. But that was the life he lived in. They did fight. This is what they did, the Gods and the anti-Gods in those myths. The Buddha had many other former-life stories.

So, by the right of this tremendous evolutionary experience and learning and virtuous, meritorious, wisdom-producing acts, he could become a Buddha. And then he said to Mara, "My witness is the earth. My witness is Mother Earth." And he put his hand on the ground, and the Goddess of Earth (Prithividevi is her name in Sanskrit, which is cognate with Persephone in Greece) suddenly showed up in sixteen animated forms, standing around in the trees, and started reciting. Because she is a God, when she recites it's like a movie. It's like a hologram! You see the whole story being acted out in three dimensions like one of those holographic projections. So Mara looked around and saw all these Walt Disney-like movies playing around him—all the stories of the Buddha's goodie-goodie behavior in his former lives, and Mara went, "Drat!" and took off! And then the Buddha obtained Buddhahood.

So this is the symbol that I want to begin with. I consider this Earth Touching Gesture the symbol about the issue of the environment. The symbol of what, in my point of view (and I think from the Buddhist point of view) is what is needed on this planet to deal with this issue of environment. In fact, nothing less than this, it seems to me, will work. There must be some form of enlightenment on the part of the human race as a whole, an unprecedented achievement, this enlightenment—or some degree of it—is needed for us to turn this great juggernaut of modern civilization away from the self-destructive path that it is set upon. In the case of the Buddha, he achieved this in the instant of enlightenment.

Now, in order for us to understand perhaps we have to unpack the story a little bit. Usually we have confused ideas about enlightenment. So, what is enlightenment? We think enlightenment is an impossible thing that only God could achieve, or Buddha, or someone else. It could never be accessible to an ordinary person. It would be impossible and even dangerous, hubris, for anyone to think they could obtain enlightenment because it is some kind of other-worldly, mystical thing. But nothing could be farther from the truth!

Enlightenment is defined as a sense, a valid sense, of the complete (*complete!*) knowledge of the reality of the self and of the environment. This does not mean knowing some theory, or having some latest new research data—it means a direct and complete knowledge equivalent to knowing precisely where all the subatomic particles are and exactly what they are doing, for instance. What their strong and weak forces are. What the infinite past is. What the infinite future is. A total direct awareness, almost like being a cloud-like, "CAT-scan-like-consciousness" fused together with everything, and therefore knowing everything. Sometimes they call it omniscience—though not the materialist concept of omniscience. It is not an omniscience of the sort where you know every fish in the ocean. It is a special kind of omniscience. An omniscience which is ready to know "whatever could be known." Just as when we say someone is omnivorous, we don't mean they have already eaten everything in the Universe. We mean they are ready to eat *anything* in the Universe. This omniscience means *to be ready to know, completely, whatever is to be known.* In the case of the Buddha, what he really felt was important to know was *to know* the cause of suffering, and *to know* the way to become free from suffering. This is what the Buddha called the Four Noble Truths. This is what the Buddha thought was worth knowing.

What he found was that in his beginningless sequence of lives, what had been haunting him and causing him to suffer all this time was a fundamental delusion very much like the sin referred to by Professor McFague. It is not a moral problem, although it does lead to moral problems. It is an epistemological problem which haunts all living beings, in the Buddhist analysis. This problem is that we all consider ourselves to be the center of our existence. Not only human beings feel this way, but from the Buddhist point of view, the Universe is very diverse, inhabited not by just humans

and animals but with various kinds of angels and gods and beings and hells, a profusely alive Universe—everyone feels himself or herself to be the center of the event taking place. All of us here consider that we are the centers of the events that are taking place. We maybe don't think that it's nice, morally, because we have developed ways of controlling this. We don't act, necessarily, very selfishly. We are all well-mannered, and we are, maybe, generous. But sitting here we think *we* are the "main thing." *We* are the center of the experience here. Each one of us does! And of course no one else agrees with each one of us because everyone else thinks he or she is the central thing here. Of course, when we're being polite and civilized and attending a lecture, that's not really a problem. We feel we are the center but we don't really impose that "we are the most main center here."

However, when we have difficulty, when there's a scarcity of resources, when we are in the sinking lifeboat, when we're in a state of crisis, when we're us-versus-us, us-versus-it, us-versus-them, then the fact that we are convinced of the absoluteness of our centrality, of the reality of our heartbeat vis-a-vis the reality of the heartbeat of someone else, who might *conceivably* have a heart that is beating, then the sense that *ours* is the "real one" going thump, thump, thump, leads, of course, to sin—to all sorts of negative actions. It leads to universal and total greed, because if I'm the main thing here, then I want to expand it more and more. It leads to hatred, because the others don't agree that *I'm* the "main thing here," and want to take things away from me. They don't want me to expand and they don't want to be subsumed into my program, so they come into conflict with me. Then I am angry with them because they didn't agree that "I'm the main thing here." So then I hate them. Or, I feel proud because when I'm on top of things, I'm greater than someone else. Or I feel jealous because I think they think *they* are greater. Of course, I know better. I know that I am better, so I become jealous. These are called the five poisons (there are actually seven poisons), the deadly sins, so to speak, and they all arise—from Buddhist point of view—from this fundamental mis-knowledge. This is not an ignorance in the sense that it is something we don't know, but an ignorance in that we think we know that we are *really* here. The way Buddhism is always misunderstood is that people think the insight into "I'm not absolutely here" can amount to a strange experience like being obliterated. They think the great idea that Buddha had—which actually comes from thousands of years of Buddhism, from the vast Buddhist scriptures, enormous sciences—is based on some guy having a kind of psychotic episode where he thought for a while that he wasn't there. Not only did he think he wasn't there, but he went around and told people, "We are *all* not here," and they were excited by this because they were Asians and weren't into individualism. They thought, "Oh, great, we are all not here!" So they ran around and had 2,500 years of Asian history! This is so silly!

Selflessness doesn't mean a realization that you don't exist! Selflessness means the realization that you don't exist in the falsely absolutist way you thought you did exist. You don't intrinsically exist, you merely relatively exist. Your relative self exists, empty of the hypothesized, absolute, rigid, fixed, intrinsically-established self. A self that you are addicted to thinking is there, that you exaggerate into thinking is here. From this arrives all of these negative things.

So then the Buddha smiled realizing that he really was empty of such a driven self, that his relative self was there in connection with the Universe, interactive with Mother Nature, with nature. Luckily and encouragingly for us, upon this understanding, He smiled. That's the good part! He could have frowned and said, "What a bummer!" He could have said, "Woe, I'm only *relatively* here." But he didn't. He smiled. Not only did he smile because it was intellectually satisfying to know the clear and direct nature of reality, but he smiled because he felt much better. After all, if you were the absolute thing, the real thing, then somehow the whole Universe is not agreeing with you. And the Universe wants you to give up this and that. It wants you to suffer pain. It makes you die. It makes other people take things from you. You lose things that you love. Once it's "you versus all the other things alien to you," then you're going to lose, all the time! You're always going to be paranoid. You're always going to be upset. You're always going to be scheming. You're going to be very filled with uncomfortable knots of always being in an impossible situation. You versus the Universes.

Suddenly, if you realize that you are there in a different, more interconnected, more relativistic way, interconnected with the Universe, suddenly you realize that there is no part of the Universe that is ultimately isolated from any other part of the Universe, that all is totally interconnected, and then you feel some relief. For example, when everything becomes impermanent, it becomes tolerable. When you die, it is a change. You realize that you, we, are all interconnected with everything. There is no intrinsic *thing* that has really died. There is only a kind of process of change. In fact, you die, and then you take another form. What is important is the quality of the forms and relationships that you have. These relationships go on and on, through death and birth, and death and birth, and have been going on since beginningless time. You come to an understand-

ing of that. You viscerally understand this notion of yourself as part of all life. You viscerally do, but not as a material entity.

You don't fall into the modern western idea of yourself as just part of a gene pool or something. You don't just say, well, there was some genetic material, an atom that floated over into my cellular pattern from some dinosaur's atom—that we are sharing atoms with a dinosaur. No, you remember *when* you were a dinosaur, munching giant banana leaves in the bottom of the Jurassic period—or whatever it was they/we were munching then. You remember what it felt like to be a dinosaur. All of this is encoded in what the Buddhists call your spiritual gene, which has been intertwining with material processes all along, life after life, with little jumps in between lives. This is the way Buddhists understand it. So you feel happy about this.

I was thinking about the Bible being blamed as the cause of all of this trouble—by these fellows White and Toynbee—that the Buddhists would not agree with that either. (Rabbi Berman's discussion of that was excellent.) The Buddhists would say that the real cause of the problem of the environment right now is not a religious problem, really, except in so far as all the religions clearly are continuing to fail to help enlighten beings—which is what they all tried to do, but still haven't really done, sufficiently. No, a terrible thing happened 300 or 400 years ago. Materialism became extremely widespread and materialism became the dominant ideology on the planet.

In ancient India, in the time of the Buddhists and Hindus, they had a school of materialists called Charvakas. What was specifically meant by this was that these people denied the existence of their soul. They said that human beings are just the evolution of so many material complexities, and that when they die that is the end of their individuate existence. It was predicted that if ever a society arose where this ideology dominated social policies and controlled social agendas, then the planet and society would be in great danger of extinction shortly thereafter. Because, in a way, all who have this theory of their own spiritual insignificance, in fact, on some level, feel that there are no consequences to what they do. Then they lose control of their greed. They lose control of their rage. They are willing to go to the nuclear extent. They are willing to go to ozone layer destruction. They'll chew up forests, anything, as long as they can enjoy the next few minutes—because they are living in the false security that the worst consequence that can happen to them, the very worst action that they do, is simply to become non-existent.

I love to debate with humanists, and I often go to the American Humanist Society and debate with them. They act like becoming non-existent is a great maturity on their part, that they have worked up from the childish religious ideas about what the soul is, in *whatever* religion. They expect me to agree with them because they have heard wrongly that Buddhists don't believe in a soul. I always disappoint them, badly! I really go after them, because the thing is that they think this understanding is a big maturity. They can really see themselves as non-existing, and they see this as a great humility and maturity of theirs. Then I say, "Well, do you think that the 'psycho' who goes out and chops people up in the shower and then says the next day that he really wasn't there is *mature*? Do you think people who somehow think that ultimately they are not there, no matter what they do, and therefore they are not responsible for what they do, are mature?" This usually quiets them down.

The problem is this culture, a so-called civilization, a mechanistic, industrialized civilization—which I think is not really a civilization—is quite barbaric in how it affects not only other humans but also other species on this planet. And maybe this barbarism is having inter-galactic repercussions, or inter-dimensional repercussions as well. You never know. But this machinery that we are part-and-parcel of is based on all of us thinking that somehow *après moi la deluge*—there are no consequences for us.

Now, the Buddhist analysis of the human egotistical habit pattern is such that if human beings come up with the ideological excuse for not being here, or think that they are automatically released from consequences at death—at *mere* death—then they become ultimately irresponsible. Especially under pressure. Perhaps not in normal conditions. Materialists can be ethical and humanist without much pressure, *when* there is enough wealth and resources to go around. But under pressure, if you think you can just shoot a hole in your brain and become extinct, forever, then you are a very dangerous person, because you don't have a sense of being permanently involved.

Now spiritual theories that teach Hell, for example, rightfully scare people, and are intended to do so. They want them to see that there are consequences to their actions, consequences that go on and on, forever. The Buddhists have hells, but they have no permanent ones. Nobody is put in them by a particular God who dominates their situation because the Buddhists don't believe in such a being. But they do believe that one can create an infinitely worse situation for oneself. One can "enjoy" this hell for quite a long period of time! It will not be infinite, and one will get out of it, but it can be a

really long time. And who wants to be even ten years in a hot hell, or a cold hell, or a crushing hell, or a dismembering hell, or all of the lurid and frightful hells that the Buddhists have imagined over their history. The one that always got me—used to get me, probably because I am a very verbal person—was the hell for liars, for the people who live a lie, a verbal lie. It is a hell where you are reborn as sort of a giant brain attached to a massive tongue about the size of a football field, a hundred football fields. And this tongue—it's just one tongue flapping there in the Universe—is on red, hot, iron ground, a kind of griddle where merry little Devils run up and down the tongue with red, hot, iron plowshares pulled by buffalos with red, hot, iron hoofs, for about one hundred million years, or so. So when people imagine that sort of thing, it kind of scares them, and they feel that, maybe, they shouldn't tell lies, and usefully so. Perhaps usefully because of the "entrenchedness" of the egotistical habit pattern.

As I said, it was a simple thingBuddha realized in enlightenment—but it is not a simple thing for people who are to actually overcome ignorance. Even if we understand it on the intellectual level—which we can do fairly easily—to be able to translate this understanding from the intellectual level to a visceral experience involves a very, very elaborate program. It is not just a matter of adopting a religious belief—that my self is only relative, for example. This wouldn't do. "Belief" won't help. It might help to orient a training or education, or developmental revolutionary process, but only to orient it. This is where meditation becomes very important in Buddhism. Once you have the understanding of "reality" through reason, then if you meditate on this understanding it will permeate your being deeper and deeper until it will become visceral. But meditation without aiming it at an understanding, of course, is like a loose cannon. Meditation just on any old thing—without thinking about anything, without thinking at all—will only reinforce the unconscious egotism that people have. This is why people in various meditation groups in this country, people who have experimented with it, have noticed, sometimes, in the leaders of their meditative communities, that after twenty or thirty years they have this eureka experience. "Hey, I'm the greatest!" In fact, all along they have been meditating without having dislodged the sense of the "centrality of self." Then, they have a big insight, the mystical insight that the self is central until the end of that time. Once they see this, combined with a deep meditative concentration, they get what is known as "cosmic inflation," and they become very hard to control by their community! They usually want Rolls Royces, and they get to be real pains-in-the-neck, actually. This is confusing for the other people because they are thinking that meditation is going to make them good. The point is, in the Buddhist tradition, without some learning and "aiming of the mind," meditation is just like a loose cannon. It can be pointed anywhere. It can either reach a target, or it can miss a target.

Coming back to environment, I have applied the Four Noble Truths to the environment. The Four Noble Truths that the Buddha taught are what He called the Holy Truth of Suffering, the Holy Truth of the Causes of Suffering, the Holy Truth of Freedom from Suffering, and the Holy Truth of the Path to Freedom from Suffering. This is sort of a summary of His truths and His teachings. Although they are called *truths*, they are basically more like medical diagnoses rather than a dogmatic proclamation of something. They don't ask for belief. They ask for specific responses.

The first, for example, the Holy Truth of Suffering, asks for recognition that the egocentric life is always inherently frustrating—that it will always be "you versus the Universe." It asks that you recognize this and fill yourself with resolve to try to overcome this egocentric error of delusion.

The second one, the Holy Truth of the Causes of Suffering, asks that you respond by abandoning the causes of suffering—causes that are said to be the delusion and addiction to various negative emotions, negative ideas, such as greed, hatred and this sort of thing.

The third one, the Holy Truth of the Freedom from Suffering, asks that you achieve freedom, you gain freedom—not that you just think about it, or believe in it, but that you actually gain it. The Buddha was an educator who founded an educational movement that went all over Asia. He founded a movement based on the fact that people were capable of becoming free from suffering by actually doing something about it, internally—by unraveling those internal knots and by actually coming into a proper attunement with their environment, thereby realizing that the Universe is a blissful place rather than a miserable place. It is only miserable if you are un-enlightened or deluded about your condition in it and its reality.

And fourth, the Holy Truth to the Path of Freedom from Suffering, asks that you practice the Path, that you not simply believe in it, but that you practice it.

Now, in relation to the problem facing the planet, the problem that the way things are going now basically means we are headed for doom, I don't need to summarize what Al Gore has already summarized. No doubt many of you are familiar with his wonderful book, *Earth in the Balance* and you all probably know about global

warming, ozone layer depletion, destruction of other species, expansion of human population, wide-spread pollution, etc. The only thing that I would say here is that it seems to me, reasonably, that if these things are not changed, if business continues as usual, I don't see the earth just shrugging it off that easily. I see very quick, very fast destruction. By comfortably sitting here in a conference room, by this lake [Lake Mendota], anybody would think that all this is not imminent. But look at Somalia. How about the children there? How about people in all these countries where the environmental impact is actually taking place? The apocalypse is definitely happening. It's not going to happen some *other* time.

But this is an environmental conference. No sense preaching to the converted. The Buddhist contribution is in investigating the causes of the problem. And here the Dalai Lama, for example, at the conference in Middlebury, the Dalai Lama didn't want to bring Buddhism into it. He wanted to say that messing up the planet was a practical problem for the people on the planet, that the planet has to be cleaned up, and he turns to the scientist to do it. "We have to study this thing and figure out what is going wrong and fix it." This is his way of being polite, I think. I have to disagree with him, a little bit, although he is my teacher, and I am probably going to regret it in the future. Some day he'll tease me about it.

Anyway, I feel that scientists are very much responsible for the problem, but not just because of the tinkering that they did or do, but because of the fundamental error of the materialistic worldview. This is what has caused this problem we have, not the religious society. We can squabble and say, "Well, the dominating model of theism was the trouble, like Toynbee and White said." Some scholars might say, "Well, this is the idea of a God who made it out of nothing, and if you mess it up, you can make another one. That's the problem. So this made people alienated," they can say.

I think, actually, some of the polluters, casually and un-religiously, tend to feel this way. There is that famous story of the secretary of environment—or of the interior?—who said, "Let's use up the national forests because armageddon is coming next week" or maybe it was that the Democrats are coming back! He felt that because he saw armageddon coming, it meant we wouldn't need the forests anymore, that God put them there to be used up by us in the Republican administration. Remember that? But that attitude isn't the fault of the religious traditions. In fact, when human egotism was under the control of the various religious traditions, including the nature religious traditions, the tribal religious traditions, the oral religious traditions, whatever we want to call them—as well as all the literate ones that have lasted until now—nobody started demanding nuclear bombs. Nobody started poisoning the rivers with pop plastic. Nobody started producing so many people, uncontrollably—having population explosions. Nobody tried to conquer the whole planet. They didn't bother. They would fight a neighboring town, but nobody tried to conquer the whole planet. The Chinese invented some of these things, but they didn't use them to conquer the whole planet.

Only when religion really lost control of the European mind did they decide that instead of an occasional ship going and getting some spices from the East, they should build factories, guns, cannons, and actually go and *conquer* the East. "Let's get away from this lousy British climate and go and settle in Calcutta, have a jolly time in the tropics." This is the cause. Therefore, from the British point of view, you have to acknowledge that materialism is part of the cause.

So, in order for scientists' use of technology to be re-oriented, that is to say, in order for them to obtain some sort of enlightenment, they have to recognize the consequence of things. If they blow up the whole planet, then they'll be reborn on a blown-up planet. They will have to deal with the horrible life that goes with a blown-up planet. Everyone thinks reincarnation is so naive, because how is somebody going to be a white male in bermuda shorts being reborn on Alpha Centori? That's so silly! You are not necessarily the same kind of being. You don't necessarily have to be the exact same human being. A male could be a female. A female could be a male. You could be a different species. One might live life as some other species not even planetary. Perhaps you would come back as some weird being like they have on *Star Trek*, a creature who lies around a rock with no limbs and eats oil slicks once every million years, or something! That might be your existence! But the point is that what you do is going to be a part of your existence, forever. The feedback goes on and on.

So therefore, Buddhists have tended towards a certain gentleness in their society, although by no means perfectly. They have tended to be militarily beatable rather than successfully predatory. They have tended to be non-violent—tended, but not completely—and tended to be vegetarians. The reason for this is because they feel connected to everything in such a way that they cannot get out of any negative actions. They still do things sometimes, but then they run quickly and try to meditate and expiate it. But basically they just don't feel that there is any way out! They even feel that certain theories that preach a rigid, fixed, unchanging soul can be somewhat at fault when it allows a person to go out and ravage and pillage and loot and crusade and slaughter and then, after the right prayer the right in-

dulgence, a little platinum dog-tag of the soul can be plucked out of the corrupt mass of flesh—after all the killing and sin—and be installed in heaven, simply because he or she spoke the right slogan. Buddhists are very critical of this type of religious rationalization.

So the fundamental cause of the human species' potentially overwhelming attack on its environment is ignorance. From the Buddhist point of view, ignorance is not a failure to know everything about the consequences of human actions, but an active mis-knowing or mis-perceiving, or misunderstanding of human reality and the reality of nature. All human beings, innately and instinctively, think they are ultimately separate from nature. Not only humans, but also animals do, from a Buddhist analysis. There is a sense that there is something that is absolutely *me*, that is just separate and inviolate, that is completely *me*, an unchanging or intrinsic identity that is very instinctively engraved in us all.

And this is the source of suffering, according to the Buddhist view. This feeling is normally controlled by cultures with myths, ideologies, religions, rituals, ethical systems of education that celebrate an ultimate unity beyond the instinctive sense of alienation. But most often these cultures cannot completely control the damage arising from the alienation which results from greed, hatred, jealousy, pride, and competitiveness—all sorts of negative motivations that have marked human history, that have been part of the constant struggle of human-against-human, human-against-nature, human against even himself or herself.

In recent centuries human ingenuity has become so clever at expanding its powers through technological inventions that it has built up a vast machinery operated upon the foundation of this tiny individual, instinctual alienation, taking it beyond the control of the ancient religions, cultures, and ethics that held it in check for so long. Our entire civilization, in a sense, represents an effort to remove the individual from our connectedness with nature and others. It enacts the program of alienation and attempts to find security, plenty, and happiness in isolation—away from any other who might impede us. Thus civilization seeks peace through weapons—products of hatred—plenty through hording; happiness through insulation, anaesthetic drugs, air conditioning, guarded residences, manipulative relationships—all products of ignorant alienation.

But since reality is nothing but relativity, as the Buddha discovered when he was touching the ground, then interconnectedness and interdependence represent the original teaching. Hatred and weapons produce destruction, first of "other" and then of "self." Greed and selfishness produce scarcity. Isolation and misknowledge finally produce not happiness but death, which from the Buddhist point of view is no final solution but actually the beginning of worse problems, especially when death follows a badly-lived life—"badly lived" meaning harmful to other beings and to oneself. All these efforts are doomed to failure. In the process of this human misunderstanding, greed and hatred overstress the environment with weapons that have reached the stage where a single all-out war would make the entire planet uninhabitable for hundreds of thousands of years. I don't think the planet would shrug off a mega-tonnage of nuclear missiles. If we don't help fund the Russian democrats, and if those nasty people get back in power and start shooting—those crazy people who again think they can do anything because they are not going to be here to witness the consequence—and then we shoot back, then I think the planet will be in serious shape. I think God will move to greener pastures. We will all reincarnate perhaps in a slightly greener pasture, probably with a weapon button right in our hand.

In summary, the causes of the problem have always been in the human psyche: ignorance, alienation, greed, hatred, and so on. The technologies of civilization have only magnified them to produce unbearable consequences for all life. So neither advancing technologies nor abandoning technologies will solve this problem. The spiritual and psychological root-problem must be solved first. Then technologies can be adapted to solve the emergency—some abandoned, some probably advanced, but all of them, no doubt, restrained by common sense.

And parallel to the Noble Truth of the Freedom from Suffering is the solution to the problem. Things have become so bad that it is a major difficulty for many people to even convince themselves that there is, in reality, any solution at all! And here, I think, if we really confront ourselves, we might find ourselves. I am, now-a-days, going around asking people what they hear. There is much cynicism: "What does it matter? It's all the same. Nothing can be done." You hear this all the time, and I'm sure you catch yourself thinking this as well. I do. "It's hopeless. No way to change this."

So, in fact, it is a certain achievement to even imagine a solution to the problem of this out-of-control civilization that we are party to. We need reasons to prove that 1) there is such a thing as a sustainable life on Earth; 2) there is a way to restore the balance of nature without sacrificing human civilization—in fact, because of the incredible population explosion we have

today, if all the people who ever lived in the whole history of mankind were to come back and be alive on the planet right now, it would only mean adding another 5 or 10 percent more people; and 3) that we can and will succeed, all depending on each individual's initiative, and the institutional and governmental responses to these initiatives.

Convincing people that there is a viable future is normally the work of religions. The thousands of them that have emerged, wherever people have been and whatever society—tribal, rural, urban, or global—have helped people with the central, inner problem, the instinct of alienation, of self-centeredness. All religions identify this problem and all provide remedies for it by restraining negative impulses that arise from it and by restoring unity in the society and harmony with nature. They have worked at this millennium-by-millennium over the entire planet. They have given peoples' lives meaning. They have helped them obtain peace-of-mind. They have reinforced their wisdom to overcome ignorance, their love to overcome hatred, their generosity to overcome greed. Even the great systems of secularism and science in recent centuries have emerged from religious impulses to gain knowledge of reality, to promote justice and equality, to provide abundance and security, and to feel love and happiness. So, it is clear that many human societies have for many thousands of years lived on Earth in a sustainable way, without destroying their environment in any fundamental way.

But what has happened in recent times is that these positive intentions have been overwhelmed by the sheer power of human ingenuity and its inventions. Religious and secular idealism has not succeeded—except in exceptional cases—in eradicating the root instinctual delusion. Alienated and ignorant individuals have been empowered and have been allowed to turn technologies toward destructive ends. We have been guilty of this. We are responsible.

Many religions have dismissed life on Earth as hopeless, saying it is fundamentally warped. Many—false appropriators of different religions—also have dismissed life on Earth as hopeless, saying it is fundamentally warped and therefore will inevitably lead to self-destruction. There are great apocalyptic myths. There are people, I must say, who appropriate Buddhism in this way. Many, not only modern western people, are interested in it, but also in Asia there are people who appropriate Buddhism in different eras and time, and even in the best of eras and times. There are individuals who say that Nirvana means "getting out of the world," means "obliterating myself out of this world." This is a negating and life-destructive misinterpretation of Buddhism. So, when Buckminster Fuller leveled the charge, as he used to do to all religions, that religions inculcate in human beings an inferiority complex about the viability of life on Earth through their theories of suffering or sin or ignorance, or whatever, Buddhism was also guilty of this. Buddhist institution have been misused this way, and doctrines have been misused this way. It would be important if religions were to try to take a new role now and recognize that they have been misused, all of them.

Secular idealism also largely has abandoned hope for the future, their holders resigning themselves to trying to enjoy the moment, leaving future consequences unattended. Sometime I think that some of the simplest religions, those of the small and peaceful communities of people who live close to nature, are better in not allowing major magnifications of the central human confusion. They have much wisdom about nature, human reality, and the kinship with other species. They have not lost the realization that all reality is alive. "A communion of subjects, not a collection of objects," as my friend Father Thomas Barry says, or like the Noesphere, a collective mind-field of living beings—the Universe in its final analysis. Fields of inter-collected minds including gods and humans and sub-human beings. All of them. Their inter-collected mind-fields shape the energy and matter of a universe, not some sort of material process, in their view.

So, I have to finish with one little thing, and this is that human societies have obtained enlightened ways of sustainable living by the long-term application of religions, of spiritual education as well as common sense applications to the problems of their environment. The Tibetans can point with pride to their accomplishment over the thousand years from 640 C.E. to 1640 C.E. During this time they changed from a nation of cruel and fierce warriors who conquered their neighbors, looted and pillaged their fields and cities, to a nation of pious and relatively gentle Buddhists who spend their deepest energies in the pursuit of enlightenment—demilitarizing, totally, in the seventeenth century, I might add. They left their neighbors in peace, non-violently spreading their ways of wisdom and compassion. They built a balanced, self-sufficient, simple but abundant economy and life style in harmony with their delicate and difficult high-altitude environment.

They enjoyed the fruits of that achievement of peace and harmony for over three centuries until the modern world invaded them with Chinese communist armies and modern, infrastructure technologies, oppressively and exploitably, even "genocidably" used. So, though their way of life has been deeply endangered, and they

are facing extinction as a nation and as a people, they did achieve a creative and enlightened balance with nature. And they did achieve unity among themselves, for many centuries. What they did on a small scale can be a lesson for the rest of the world—an inspiration and proof that it is possible to create a sustainable life on Earth through our own human enlightenment, energetic compassion, common sense, and hard work.

So what finally I have to say is that the Tibetans didn't allow cynicism and selfishness to prevent them from unleashing their fullest efforts, to see to it that they themselves and everyone else, and all the societies, and all their leaders and rulers should, change their behavior to a sensitive, empathetic and non-selfish way of living. Even if it fails, from a Buddhist point of view, it will not be lost. The soul force of that generosity and idealism will go on forever, even if there is physical death.

The path to the solution lies in education. The reason Tibet succeeded in the thousand years of transforming itself is the fact that 85 percent of the Tibetan national budget, from the seventeenth century on, was spent in support of education. Everywhere there were schools. They were monastically oriented, and it was a pre-modern culture, not an education in the secular sense that we understand—although it had psychology and cosmology and other kinds of sciences and medicines, as well—but a culture that was based on the idea that the purpose of a human being in that society was to educate himself or herself. That was their life's purpose! Can you imagine? If America was to change itself so that every individual was told that the highest thing you could do with your life was to be in school—life long? Can you imagine? Do you remember Mr. Bennett, as secretary of education, begrudging you a scholarship? The little bit of schooling you get is only a few years of liberal education, and then you go out and do something productive and utilitarian in your culture. School is to prepare you for the real purpose of life—to produce. And to produce regardless of the fact that we over-produce so much so that we are practically sinking in a sea of over-production.

Instead, imagine what it would take to turn our society toward the idea that our purpose on Earth is to unfold our understanding of how to conquer our self-centeredness. This is what the purpose of life is, our evolutionary purpose!

Because the human lifeform is the lifeform that is closest to self-emptying, in a certain way, it makes it ironically crucial, because persons who have a human lifeform are not given it arbitrarily. They have earned it from billions of lifetimes of former effort. So if they had it and threw it away by making machine parts in a factory or fighting and getting killed, or doing something like using the human body as a machine instead of pushing the evolution of selflessness another step—to where one can fully benefit all beings, to where they have really rooted out all traces of selfish egotism and self-centered mis-knowledge—then they have really drastically wasted their lives. Then their rebirth will be driven by blind instincts and compulsions, and they will have no guarantee of being reborn in a decent world. It may take millions of lifetimes before they come back up to the human life, where they have another chance.

So, therefore, the Buddhists consider that the purpose of life is education. If this planet is to survive this environmental crisis, now just stepping aside from Buddhism, as I have been reading about it for twenty, thirty years, then finally it will come down to people becoming enlightened. An enlightened mass of people—not just in our society but in many societies—individually gaining greater insights into their own natures, the impact of their habits, the consequences of their actions and really, therefore, *acting* on that new insight.

We could tell them it is immoral go spoil and do this and that. We can tell them this for as long as we want, but it's just like someone being told they were bad. It doesn't help, necessarily. They don't necessarily understand how *not* to be bad, especially when they have these drives. So, in addition to telling them that they are bad, we have to produce a strategy and an educational facility. We have to offer an educational discipline that will enable us, en masse, to produce an unprecedented, accelerated education that speaks to the education of the heart. And we will have to extend this throughout the planet, like it has never been extended by any religion. This, to me, is the challenge—why I came to this conference. Although I am over-busy, and I am jet-lagged, and I am (horribly) the chairman of my department, and also I am talking too long, the reason I came here is because I felt that the environmental movement, without the input of religion, cannot succeed because it will only be one kind of materialism versus another.

Religions must have an input. However, if religions just try to reassert their beliefs by saying, "Well, we used to have it good, we should just go back to the way we were before," that will not suffice. Religions have to think of some new way of marketing, developing, and "technologizing" their ways, not by just propagating their beliefs, but by producing understanding and insight and by producing a machinery of education and a machinery of constructive and positive attitudes that will match the overwhelming machinery of destruction.

Taking Empirical Data Seriously: An Ecofeminist Philosophical Perspective

by Karen J. Warren

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Trees, forests, and deforestation. Water, drought, and desertification. Food production, poverty, and toxic wastes. Environmental destruction and women. And *women*? What do these environmental issues have to do with women?

According to ecological (eco)feminists, there are important connections between the treatment of women, people of color, the underclass, on the one hand; and the treatment of non-human nature, on the other hand. Ecological feminists claim that any feminism, environmentalism, or environmental ethic which fails to take these connections seriously is grossly inadequate.[2] Establishing the nature of these connections, particularly what I will call "women-nature connections," and determining which are potentially liberating for both women and non-human nature is a major project of ecofeminist philosophy.[3]

In this paper, I focus on *empirical women-nature connections*. I suggest that, from an ecofeminist philosophical perspective, it is important for all of us interested in finding solutions to environmental destruction, and the unjustified subordination of women and other sub-dominant groups, to take seriously these connections. By doing so, I hope to motivate and establish the practical significance of ecofeminist philosophy.[4]

FEMINISM AND FEMINIST ISSUES

As I understand feminism, it is a movement committed to the elimination of male-gender power and privilege, or "sexism." Despite differences among feminists, all feminists agree that sexism exists, is wrong, and ought to be changed.

Initially conceived as the movement to end sexist oppression, academic feminists have come to see that the "liberation of women" cannot be achieved until *all* women are liberated from the multiple oppressions that structure our gendered identities: women of color from racism, poor women from classism, lesbian women from heterosexism, young and older women from ageism, Jewish women from anti-Semitism, women of the South from ethnocentrism. Thus, feminism is intrinsically a movement to end racism, classism, heterosexism, ageism, anti-Semitism, ethnocentrism.

Something is a *feminist issue* if an understanding of it helps one understand the oppression or subordination of women. Equal rights, comparable pay for comparable work, and day care centers are feminist issues because understanding them sheds light on the subordination of women. Racism, classism, ableism, anti-Semitism are feminist issues because understanding them helps one understand the subordination of women.

According to ecofeminists, trees, water, animals, toxins, and nature language are feminist issues because understanding them helps one understand the status and plights of women cross-culturally. At least, that's what I hope to suggest in this paper.

ECOFEMINISM

Just as there is not one feminism, there is not one ecofeminism or one ecofeminist philosophy. Ecological feminism has roots in the wide variety of different feminisms (e.g., liberal feminism, marxist feminism, radical and socialist feminisms, Black and Third World feminisms). What makes ecofeminism distinct is its insistence that non-human nature and naturism (i.e., the unjustified domination of nature) are feminist issues. Ecofeminist philosophy extends familiar feminist critiques of social "isms of domination" (e.g., sexism, racism, classism, heterosexism, ageism, anti-Semitism) to nature (i.e., naturism). According to ecofeminists, nature is a feminist issue. In fact, an understanding of the overlapping and intersecting nature of "isms of domination" is so important to feminism, science, and local community life that I have found it helpful to visualize *ecofeminist philosophy* as the intersection of three spheres (given at *):

According to this way of visualizing ecofeminist philosophy, it arises out of and builds on the mutually

supportive insights of feminism; science, development, and technology; and local perspectives. Ecofeminist philosophy brings all the tools of feminist philosophy to bear on issues which are at *. Those contributions which fall *outside* * would not be distinctively *ecofeminist philosophy*.

Consider, now, why nature is a feminist issue. This will show why ecofeminist philosophers take empirical data on women-nature connections very seriously.

TREES, FORESTS, FORESTRY

In 1974, twenty-seven women of Reni in Northern India took simple but effective action to stop tree felling. They threatened to hug the trees if the lumberjacks attempted to fell them. The women's protest, known as the Chipko (Hindi for "to embrace" or "hug") movement, saved 12,000 square kilometers of sensitive watershed.[5] This grassroots, non-violent, women-initiated Chipko movement also gave visibility to two basic complaints of local women: Commercial felling by contractors damages a large number of other trees, and the teak and eucalyptus monoculture plantations are replacing valuable indigenous forests.[6]

The Chipko movement is ostensibly about saving trees, especially indigenous forests.[7] But it is also about important women-nature connections: trees and forests are inextricably connected to rural and household economies governed by women, especially in Third World countries. So tree shortages are *also* about women. As a result of first world development decisions in India, multiculture species of trees have been replaced by monoculture species, primarily eucalyptus.

But eucalyptus is very unpopular among local women.[8] The reasons why local women dislike eucalyptus plantations show *four* crucial respects in which trees, forests, and forestry are a feminist issue, i.e., how understanding the empirical connections between women and trees improves one's understanding of the subordination of women.

First, in the South (developing countries) women are more dependent than men on tree and forest products.[9] Trees provide five essential elements in these household economies: food, fuel, fodder, products for the home (including building materials, household utensils, gardens, dyes, medicines), and income.[10]

Second, women are the primary sufferers of environmental degradation and forest resource depletion.[11] This is because it is women who must walk farther for fuelwood and fodder and who must carry it all back themselves (e.g. without the help of animals). According to one estimate, women in New Delhi walk an average of ten kilometers every three or four days for an average of seven hours each time just to obtain firewood.[12] As men increasingly seek employment in towns and cities, it is women who must carry out men's former jobs plus the laborious tasks of collecting and processing forest products on degraded soils. It is women who are left without income-producing alternatives due to the reduced availability of forest products to use as a source of income. And it is the household technology needs of women which new development projects have failed to adequately address.

Third, there are customs, taboos, legal constraints, and time constraints which women face that men do not face. For example, among the Ibo, men own timber trees, women control the use of food trees, and women cannot inherit economic trees although they have a right to be maintained from the proceeds of those trees owned by their parents.[13]

Lastly, trees, forests, and forestry are a feminist issue for *conceptual* reasons: Some key assumptions of orthodox forestry are male-biased. Consider three such assumptions.

One assumption of orthodox forestry is that *the outsider knows best*; the outsider has the requisite technical expertise to solve the problem of the lack of trees in Third World countries. But this assumption is false or problematic. It is the insider most inside the culture—the Chipko women of India, for example—who are the experts, who have what feminist foresters call "indigenous technical knowledge" (ITK) and feminist philosophers call "epistemic privilege" around forestry production.[14] Because local women are the primary users of forest commodities in most developing countries, their "day-to-day, hands-on involvement with forestry goes far beyond that of many professionally trained foresters."[15] In a Sierra Leone village were able to identify thirty-one products from nearby bushes and trees while men could identify only eight.[16] Women's "indigenous technical knowledge" grows out of their daily felt, lived experiences as managers of trees and tree products.

A second assumption of orthodox forestry is that activities which fall outside the boundaries of commercial fiber production are less important.[17] Yet these activities are precisely those which women engage in on a daily basis. Conceptually, the "invisibility" of what women do accounts for the mistaken assumption that management and production policies of orthodox forestry are not gender-biased. It also explains why many foresters "literally do not see trees that are used as hedgerows or living fence poles; trees that provide materials for basketry, dyes, medicines, or decorations; trees that provide sites for honey barrels; trees that provide shade; or trees that provide human food."[18]

And because these foresters literally do not *see* these multiple uses of trees, they also often do not see a lot more, e.g., that multiculture tree species are useful, that men and women may have very different uses for the same tree, or may use different trees for different purposes. This inability to see women's contributions is a "patriarchal conceptual trap" of orthodox forestry.[19]

A third assumption of orthodox forestry is that it usually is better to have large-scale production using a small number of species than small-scale community-based forestry using a wide variety of species. The Chipko movement challenges this assumption.[20] Since small-scale production reflects local priorities, involves multiple uses of many species of trees, and is responsive to the social reality of women's importance in agriculture and forest production, to threaten small-scale production is to threaten the livelihood and well-being of women.

In summary, then, trees, forests, and forestry are (eco)feminist issues. Consider now other empirical examples.[21]

WATER

Only 8 percent of the world's water supply is fresh or potable.[22] Millions of humans have difficulty getting sufficient water necessary for survival, about five liters a day. In more than half of the South (so-called developing countries), less than 50 percent of the population has a source of potable water or facilities for sewage disposal. The World Health Organization estimates that approximately 85 percent of all sicknesses and diseases in the South are attributable to inadequate water or sanitation, and as many as twenty-five million deaths a year are due to water-related illnesses. Fifteen million children die every year before they are five; four million of these die form diarrhea and associated water-related diseases.[23]

In the South, women and children perform most of the water collection work.[24] Because of natural resource depletion, women also must walk farther for water (e.g., one to fifteen kilometers daily through rough terrain in Uttarakhand, India). Since it is typically women and children who perform the water collection work, it is women and children who experience disproportionately higher health risks in the presence of unsanitary water. Each year millions of people, predominately women, are affected by major illnesses acquired while drawing water—300 million people with malaria, twenty to thirty million with river blindness, and 270 million with elephantiasis.[25] Drinking water is often drawn from public bathing and laundering places, and the same water frequently is used as a public toilet.[26]

Contaminated water is not just a problem of the South. In 1980, the United States produced 125 billion pounds of hazardous waste, enough to fill approximately 3,000 Love Canals. In the mid-1970s, 90 percent of hazardous wastes were being disposed of improperly. "These wastes have contributed to groundwater contamination of a local basis in all parts of the nation and on a regional basis in some heavily populated and industrialized areas. The [U.S.] House Subcommittee on Environment, Energy, and Natural Resources in 1980 listed 250 dump sites that 'present a great potential threat to drinking water supplies.'"[27] Ground water is the drinking water source for nearly half of the population of the United States.[28] Yet according to 1991 estimates, one in six people in the United States drink water contaminated by lead, a known cause of impaired IQ in children. Water, then, is an (eco)feminist issue.

FOOD AND FARMING

It is estimated that women farmers grow at least 59 percent of the world's food, and perhaps as much as 80 percent. Between one-third and one-half of the agricultural laborers in the Third World are women. Yet the gender division of labor typically puts men in charge of cash crops while the women manage food crops. Women in Africa produce more than 70 percent of Africa's food, typically without tractors, oxen, or even plows.[29] According to Mayra Buvinic and Sally Yudelman,

> As a rule, women farmers work longer hours, have fewer assets and lower incomes than men farmers do, and have almost as many dependents to support. The disparity is not due to lack of education or competence. Women farmers are poorer because their access to credit is limited. Without credit they cannot acquire productive assets, such as cattle, fertilizer or improved seeds, to improve the productivity of their labor.[30]

Consider the root crop cassava. Cassava is critically important in parts of Africa in times of scarcity. Women do 70 to 80 percent of the growing and harvesting of cassava, and 100 percent of the processing, which includes washing out the natural cyanide found in it (a process which takes eighteen five-hour days). Little money has been devoted to research on cassava or on the development of technologies that would increase the productivity of women farmers and the demand for and price of cassava.[31]

Women's agricultural roles are many: Women are farm owners and farm managers (with major decision-making responsibilities about production and most agricultural tasks), farm partners (who share

responsibility for agricultural production, typically with another household member), farm workers (unpaid family laborers), and wage laborers (who work for a daily wage or are paid by output).[32] Historically, a failure to realize the extent of women's contribution to agriculture (e.g., by First World development policies and practices) has contributed to the "invisibility of women" in all aspects of agricultural work (e.g., in ploughing, planting, caring for "livestock," harvesting, weeding, processing, and the storing of crops).[33]

TECHNOLOGIES

Often the technologies exported from the North to the South only exacerbate the problem of tree, water, and food shortages for women. In forestry, men are the primary recipients of training in urban pulp and commodity production plants, and are the major decision-makers about forest management, even though local women often know more about trees than local or outsider men. In agriculture, men are the primary recipients of training and access to machines, tractors, ploughs, and irrigation systems even though women are the major food producers. In water systems, men are the primary recipients of training in the construction and use of water pumps, wells, filtering systems, and faucets, even though women are responsible for water collection and distribution tasks.

One striking example of a so-called "appropriate technology" (i.e., a small-scale, simple, inexpensive, intermediate technology made from local material and labor) which is totally inappropriate for women concerns women and food in Africa:

> In Africa where sunshine is abundant but oil, coal and wood are scare and expensive, a solar stove should really mean utmost happiness to women—or so some eager development theoreticians thought. Field tests then showed what every experienced expert [or local women] could have predicted: In the African bush, meals are prepared in the morning or in the evening when the sun has not yet risen or has already set. Furthermore: which cook wants to stand in the scorching sun? Finally, the nightly fire also has a group and therefore social function.[34]

"Appropriate technology," when developed and carried out by men who lack a basic understanding of women's lives and work, results in the creation of solar stoves for women who cook before dawn and after dusk, maize shellers which take longer to do the job than when women do the shelling themselves, and pedal-driven grinding mills in areas where women are forbidden to sit astride.[35] Technology is an (eco)feminist issue.

TOXINS

While neither sex is naturally more resistant to toxic agents and resistance appears to depend on the substance in question,[36] there is strong evidence for the existence of sex-gender related differences to environmental toxic substances. Persistent toxic chemicals, due largely to their ability to cross the placenta, to bioaccumulate, and to occur as mixtures, pose *disproportionate* serious health threats to infants, mothers, and the elderly.

The household is also an important locus of environmental health hazards for women.[37] Women-headed households are a growing worldwide phenomenon, making up over 20 percent of all households in Africa, the developed regions, Latin America, and the Caribbean.[38] Lastly, "most workplace health standards tend to be based on criteria derived from the assessment of how *men* have responded in the historical past to pollutants" (Calabrese 1985, 3). Toxins are a gender issue; they are also a race and class issue.

ENVIRONMENTAL RACISM

In the United States, Native American women face unique health risks because of the presence of uranium mining on or near Indian reservations. (The uranium is used for nuclear energy.) According to Lance Hughes, director of Native Americans for a Clean Environment, the Navajo, Zuni, Laguna, Cheyenne, Arapahoe, Utes, and Cree all report health problems from uranium mining on their land.[39] According to one report,

> A survey of households and hospitals on the Pine Ridge Reservation in South Dakota revealed that in one month in 1979, 38 percent of the pregnant women on the reservation suffered miscarriages, compared to the normal rate of between 10 and 20 percent . . . [there were] extremely high rates of cleft palate and other birth defects, as well as hepatitis, jaundice, and serious diarrhea. Health officials confirmed that their reservation had higher than average rates of bone and gynecological cancers.[40]

Navajo Indians are the primary workforce in the mining of uranium in the United States. According to a 1986 report, *Toxins and Minority Communities* by the Center for Third World Organizing (Oakland, California), two million tons of radioactive uranium tailings have been dumped on Native American lands. Indian reservations of the Kaibab Paiutes (Northern Arizona)

and other tribes across the United States are targeted sites for hazardous waste incinerators, disposal and storage facilities.[41] Many tribes, "faced with unemployment rates of 80 percent or higher, are desperate for both jobs and capital."[42]

The issues facing women and men of color raise serious issues about environmental racism. In 1989, the United Church of Christ Commission for Racial Justice did a study entitled *Toxic Waste and Race in the United States.*[43] The study concluded that race is a major factor in the location of hazardous waste in the United States: Three out of every five African- and Hispanic-Americans (more than fifteen million of the nation's twenty-six million African-Americans and over eight million of the fifteen million Hispanics), and over half of all Asian Pacific Islanders and American Indians, live in communities with one or more uncontrolled toxic waste sites. 75 percent of residents in the rural Southwest, mostly Hispanic, drink pesticide-contaminated water. The nation's largest hazardous-waste landfill, receiving toxins from forty-five states, is in Emelle, Alabama, which is 79.9 percent African-American. Probably the greatest concentration of hazardous waste sites in the United States is on the predominately African-American and Hispanic South Side of Chicago. In Houston, Texas, six of eight municipal incinerators, and all five city landfills, are located in predominately African-American neighborhoods.[44]

There are hundreds of grassroots environmental organizations and actions initiated by women and low-income minorities throughout the world. As Cynthia Hamilton claims,

> Women often play a primary role in community action because it is about things they know best. They also tend to use organizing strategies and methods that are the antithesis of those of the traditional environmental movement. Minority women in several urban areas [of the United States] have found themselves part of a new radical core of environmental activists, motivated by the irrationalities of capital-intensive growth. These individuals are responding not to "nature" in the abstract but to their homes and the health of their children . . . Women are more likely to take on these issues than men precisely because the home has been defined as a woman's domain.[45]

Environmental racism is a (eco)feminist issue.

ENVIRONMENTAL AGEISM: CHILDREN

As the quote from Cynthia Hamilton suggests, the health of children is also a feminist environmental issue. The Federal Centers for Disease Control in Atlanta, Georgia, document that lead poisoning endangers the health of nearly eight million inner-city, largely African-American and Hispanic children. Countless more live with crumbling asbestos in housing projects and schools.[46] In the United States, over 700,000 inner-city children are suffering from lead poisoning (and the learning disabilities which result), 50 percent of whom are African-, Hispanic-, and Asian-American.[47] In the United States, the National Resources Defense Council estimates that more than half of the lifetime risk of cancer associated with pesticides on fruit is incurred before the age of six.[48] Reproductive organ cancer among Navajo teenagers is seventeen times the national average.

Furthermore, women and children are seriously affected by poverty. In the United States, 78 percent of all people living in poverty are women or children under the age of eighteen. In Australia, the proportion is 75 percent. Worldwide, the largest poverty group is women-headed households.[49] The three elements which make up the major part of Third World disasters are deforestation, desertification, and soil erosion. The rural poor, a disproportionate number of whom are women and children, are the primary victims. The living conditions of women, people of color, the poor, and children, then, are (eco)feminist issues.

SEXIST-NATURIST LANGUAGE

Many philosophers (e.g., Wittgenstein) have argued that the language we use mirrors and reflects our conception of ourselves and our world. When that language is sexist or naturist, it mirrors and reflects conceptions of women and non-human nature as inferior to, having less prestige or status than, that which is identified as male, masculine, or "human" (i.e., male).

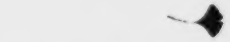
The language used to describe women, nature, and nuclear weaponry often is sexist and naturist. Women are described in animal terms as pets, cows, sows, foxes, chicks, serpents, bitches, beavers, old bats, old hens, mother hens, pussycats, cats, cheetahs, bird-brains, and hare-brains. Animalizing or naturalizing women in a (patriarchal) culture where animals are seen as inferior to humans (men) thereby reinforces and authorizes women's inferior status. Similarly, language which feminizes nature *in a (patriarchal) culture* where women are viewed as subordinate and inferior reinforces and authorizes the domination of nature: "Mother Nature" is

raped, mastered, conquered, mined; her secrets are "penetrated" and her "womb" is to be put into service of the "man of science." Virgin timber is felled, cut down; fertile soil is tilled, and land that lies "fallow" is "barren," useless. The exploitation of nature and animals is justified by feminizing them; the exploitation of women is justified by naturalizing them.

In her startling essay "Sex and Death in the Rational World of Defense Intellectuals,"[50] Carol Cohn describes how sexist-naturist language pervades nuclear parlance.[51] Nuclear missiles are in "silos" on "farms." That part of the submarine where twenty-four multiple warhead nuclear missiles are lined up, ready for launching, is called "the Christmas tree farm;" BAMBI is the acronym developed for an early version of an antiballistic missile system (for Ballistic Missile Boost Intercept). Cohn describes a linguistic world of vertical erector launchers, thrust-to-weight ratios, soft lay downs, deep penetration, penetration aids (familiarly known as "penaids": devices that help bombers of missiles get past the "enemy's" defensive systems), or "the comparative advantages of protracted versus spasm attacks—or what one military advisor to the National Security Council has called "releasing 70 to 80 percent of our megatonnage in one orgasmic whump."[52] It is a world where missiles are "patted" like pets, where India's explosion of a nuclear bomb is spoken of as "losing her virginity," and New Zealand's refusal to allow nuclear arms or nuclear-powered warships into its ports is described as "nuclear virginity."[53] Such sexist-naturist language creates, reinforces, and justifies nuclear weapons as a kind of sexual dominance.

Lest one suppose that use of such language is a philosophical oxymoron, consider the language used routinely by philosophers to describe that which "we" value most: reason. Since Aristotle, reason or rationality has been taken not only as the hallmark of humanness (allegedly, humans alone are rational animals) but also as what makes humans superior to (some) other humans and to non-human animals and nature. Yet, as Vance Cope-Kasten shows in an article entitled "A Portrait of Dominating Rationality,"[54] domination metaphors and sexist language *pervade* philosophical descriptions of reason, rationality, and good reasoning: Good reasoners knock down arguments; they tear, rip, chew, cut them up, attack them, try to beat, destroy, or annihilate them, preferably by "nailing them to the wall." Good arguers are sharp, incisive, cutting, relentless, intimidating, brutal. Those not good at giving arguments are wimpy, touchy, quarrelsome, irritable, nagging. Good arguments have a thrust to them; they are compelling, binding, air-tight, steel-trap, knock-down, dynamite, smashing, and devastating bits of reasoning which lay things out and pin them down, overcoming any resistance. Bad arguments are described in metaphors of the dominated and powerless: They fall flat on their face, are limp, lame, soft, fuzzy, silly, and full of holes.[55]

So *even if* in some sense the concepts of reason and rationality are gender-neutral, historically both their distribution and characterization have been gender-biased and nature-biased: Women and animals are less rational or nonrational (respectively), and "bad reasoning" is described in sexist and domination metaphors. Therefore, sexist-naturist language is an (eco)feminist issue.



TAKING (THIS) EMPIRICAL DATA SERIOUSLY

The empirical and linguistic data provided by ecofeminism is significant philosophically. It suggests (1) the *historical and causal* significance of ways in which environmental destruction disproportionately affects women and children; (2) the *epistemological* significance of the "invisibility of women," especially of what women know (e.g., about trees), for policies which affect both women's livelihood and ecological sustainability; (3) the methodological significance of omitting, neglecting, or overlooking issues about gender, race, class, and age in framing environmental policies and theories; (4) the *conceptual* significance of mainstream assumptions, e.g., about rationality and the environment, which may *inadvertently, unconsciously, and unintentionally* sanction or perpetuate environmental activities which disproportionately have adverse effects on women, children, people of color, and the poor; (5) the *political and practical* significance of women-initiated protests and grassroots organizing activities for both women and the natural environment; (6) the *ethical* significance of empirical data for theories and theorizing about women, people of color, children, and nature; (7) the *theoretical* significance of ecofeminist insights for any politics, policy, or philosophy; and (8) the *linguistic and symbolic* significance of language used to conceptualize and describe women and non-human nature.[56]

I hope these remarks motivate and establish the need for feminists, environmentalists, philosophers—indeed, all of us—to think deeply about empirical connections between women and nature, and also between people of color, children, the poor, and nature. I hope they suggest why, from an ecofeminist philosophical perspective, one should take this sort of empirical data *very* seriously.

Notes

1. This paper is part of a larger version which will appear as Chapter One in a book co-authored with Jim Cheney, *Ecological Feminism: A Philosophical Feminist Perspective* (Denver: Westview Press, 1993). Sections of the paper already have appeared in "Toward An Ecofeminist Ethic," *Studies in the Humanities*, Vol. 15, No. 2, December 1988, pp. 140-156, and will appear in "Women, Nature, and Technology: An Ecofeminist Philosophical Perspective," *Research in Philosophy and Technology*, special issue on technology and feminism, guest editor, Joan Rothschild, 1993.

2. For a selected bibliography of ecofeminist literature, see Carol J. Adams and Karen J. Warren, "Feminism and the Environment: A Selected Bibliography," APA *Newsletter on Feminism and Philosophy*, Fall 1991, pp. 148-157.

3. For a discussion of a variety of women-nature connections, see Karen J. Warren "Feminism and the Environment: An Overview of the Issues," American Philosophical Association *Newsletter on Feminism and Philosophy*, Fall 1991, Vol. 3, pp. 108-116.

4. Two caveats are in order: First, the examples offered here provide only a glimpse at the range and diversity of contemporary women-nature issues which motivate, document, and inspire ecofeminism as a political movement and set of theoretical positions. They also provide only a pigeonhole view of the sorts of philosophically significant things one could say about empirical women-nature connections. Second, although my focus is on women, I do not intend to suggest that men are not affected by these issues, or that all men are affected in similar ways (any more than I intend to suggest that all women are affected in similar ways). I intend that the empirical considerations offered here to be just that: empirical considerations that illustrate and motivate the need to take seriously women-nature connections. This is true *even* if, as I believe, these connections also illustrate and motivate the need to take seriously *other* connections (e.g., connections between nature and old persons/young persons, race/ethnicity).

5. This discussion of the Chipko movement as an ecofeminist concern is taken from my article "Toward an Ecofeminist Ethic," ibid.

6. *The State of India's Environment: 1984-85; The Second Citizens' Report*. New Delhi: Center for Science and Environment, 1985, p. 94. The Chipko movement is especially noteworthy for its distinctively ecological sensitivity. This is clearly seen in the slogan of the Chipko movement: The main products of the forests are not timber or resin, but *"soil, water,* and oxygen" (cited in Jayanta Bandyopadhyay and Vandana Shiva, "Chipko: Rekindling India's Forest Culture," *The Ecologist*, Vol. 17, No. 1, 1987, p. 35). According to Bandyopadhyay and Shiva,

   > The new concern to save and protect forests through Chipko satyagraha did not arise from resentment against further encroachment on the people's access to forest resources. It arose from the alarming signals of rapid ecological destabilisation in the hills . . . It has now evolved to the demand for ecological rehabilitation. Since the Chipko movement is based upon the perception of forests in their ecological context, it exposes the social and ecological costs of short-term, growth-oriented forest management.

   For an excellent discussion of the Chipko movement and its effectiveness as a resistance strategy to what she calls Western "maldevelopment"—First World development policies and practices aimed primarily at increasing productivity, capital accumulation, and the commercialization of Third World economies for surplus and prof it, see Vandana Shiva ' s *Staying Alive: Women, Ecology and Development*. London: Zed Books, 1988.

7. Trees and forests are disappearing at an alarming rate. India is losing 1.3 million hectares of forests a year, nearly eight times the annual rate put out by forest departments. Wood shortages are great and wood prices are high. See *The State of India's Environment: 1984-1985*, ibid., p. 49.

8. The replacement of natural forests in India with eucalyptus plantations has been justified on the grounds of increased productivity. But the productivity is in the area of pulpwood only:

   > What has been called the "Eucalyptus controversy" is in reality a conflict of paradigms, between an ecological approach to forestry on the one hand, and a reductionist, partisan approach which only responds to industrial requirements on the other. While the former views natural forests and many indigenous tree species more productive than eucalyptus, the reverse is true according to the paradigm of Commercial Forestry. The scientific conflict is in fact an economic conflict over *which* needs and *whose* needs are important (*The State of India's Environment*, ibid., p. 33).

9. *Restoring the Balance: Women and Forest Resources*, published by the Food and Culture Organization (FAO) of the United Nations, with assistance from the Swedish International Development Authority (SIDA), Rome, 1987, p. 4.

10. Ibid., p. 104.

11. Louise Fortmann and Dianne Rocheleau, "Women and Agroforestry: Four Myths and Three Case Studies," *Agroforestry Systems*, Vol. 9, No. 2, 1985, p. 37.

12. Waring, 1988, p. 263.

13. Louise P. Fortmann and Sally K. Fairfax, "American Forestry Professionalism in the Third World: Some Preliminary Observations on Effects," in *Women Creating Wealth: Transforming Economic Development*, selected papers and speeches from the Association of Women in Development conference, Washington, D.C., April 25, 1988, p. 107. Fortmann and Fairfax have taken their information from S.N.C. Obi, *The Law of Property*. London: Butterworths, 1963, p. 97.

14. See Louise P. Fortmann and Sally K. Fairfax, ibid.; Louise Fortmann and Dianne Rocheleau, ibid.; *Linking Energy with Survival: A Guide to Energy, Environment, and Rural Women's Work*, Geneva: International Labour Office, 1987; *Restoring the Balance: Women and Forest Resources*, ibid.; Irene Tinker, "Women and Energy: Program Implications," Washington, D.C.: Equity Policy Center, 1980; *Women and the World Conservation Strategy. Gland: International Union for the Conservancy of Nature, 1987.*

15. Fortmann and Fairfax, ibid., p. 105.

16. Marilyn Hoskins, "Observations on Indigenous and Modern Agroforestry Activities in West Africa," *Prob-*

lems of Agroforestry. Freiburg: University of Freiburg, 1982. Cited in Fortmann and Fairfax, ibid., p. 105.

17. See Fortmann and Fairfax, p. 106.
18. Ibid.
19. This term is used by Elizabeth Dodson Gray, *Patriarchy As A Conceptual Trap*. Wellesley: Roundtable Press, 1982.
20. In developing countries, women are often the prime users of forest products and often the only ones involved in fuelwood and forest products production. As heads of households, women have become increasingly more involved in non-traditional roles in both agriculture and forestry.
21. Unlike the preceding discussion of women and trees, this data is given without critical commentary. The philosophical and feminist significance of the data will be given generically at the end.
22. Marilyn Waring, *If Women Counted: A New Feminist Economics*. Harper and Row, p. 258.
23. See Marilyn Waring, "Your Economic Theory Makes No Sense," *If Women Counted: A New Feminist Economics*. Harper and Row, p. 257. Also Lloyd Timberlake and Laura Thomas, *When The Bough Breaks . . . Our Children, Our Environment*. London: Earthscan Publications, 1990, p. 128. According to Waring, half of these children could be saved if they had access to safe drinking water.
24. Small-scale studies in Asia and Africa indicate that women and girls spend on average 5-17 hours per week collecting and carrying water (e.g., in Africa, 17.5 hours in Senegal; 5.5 hours in rural areas of Botswana; and 43.5 hours on northern farms in Ghana. In Asia, 7 hours in the Baroda region of India; 1.5-4.9 hours in Nepal villages, depending on the ages of the girls; and 3.5 hours in Pakistan). See *The World's Women, 1970-1990: Trends and Statistics*. New York: United Nations, 1991, p. 75.
25. Joni Seager and Ann Olson, *Women in the World: An International Atlas*. New York: Simon and Schuster, Section 25.
26. The recent war in the Persian Gulf has drawn attention to and exacerbated the problem of unpotable water. "The Tigris River has been used as a well, as a bathing place, and, increasingly, as a latrine," according to Richard Reid of the United Nation's Children's Fund (UNICEF). See *Minneapolis Star-Tribune*, March 2, 1991, p. 11A. Reid worries that there is a "burning urgency to make sure that kids and pregnant women do not fall victim to" this environmental disaster.
27. *The New York Times*, September 20, 1980, p. 45; cited in Freudenberg and Zaltzberg, p. 253.
28. Waring, ibid., p. 259.
29. Jane Perlez, "Inequalities Plague African Women," *Minneapolis Star-Tribune*, March 4, 1991, p. 4A.
30. Mayra Buvinic and Sally Yudelman, ibid., p. 24.
31. Ibid., p. 30. According to Buvinic and Yudelman, cassava illustrates four issues critical to understanding women's role in agriculture: 1) the extent of women's participation in food production and their contributions to food security; 2) the heavy demands farming places on women's time and labor; 3) the willingness of women to grow crops which have little or no economic payoff but enable poor families to eat during periods of food scarcity; 4) the general tendency to assign fewer resources to crops qrown by women.
32. Buvinic and Yudelman, pp. 24-26.
33. See the United Nations *Handbook on Women in Africa*. Economic Commission for Africa, 1975. Cited in *Women: A World Report*, p. 17.
34. Helmut Mylenbusch, "Appropriate Technology—Fashionable Term, Practical Necessity, or New Social Philosophy?" *Development and Cooperation* 3, 1979, p. 18; quoted in Marilee Karl, ibid., p. 88.
35. Cited in Karl, ibid., p. 90; taken from Carr, ibid., p. 28.
36. See *Health Risks*, p. 318.
37. In her essay, "The Home is the Workplace: Hazards, Stress, and Pollutants in the Household," *Double Exposure*, pp. 219-224, Harriet Rosenberg claims that a rigid sexual division of labor in the household contributes to significant health and safety hazards for women who work in the home. (The data is based on United States households.) This work women do in the home includes housework, motherwork, and wifework. Product health hazards exist in most home cleaning products (e.g., drain and oven cleaners [lye], toilet bowl and window cleaners [ammonia], scouring powders, chlorine bleach, disinfectants, detergents, furniture polishes) and appliances (e.g., gas stoves which emit carbon monoxide, radiation leakage from microwave ovens, fluorescent lights). Furthermore, according to Rosenberg, the average household has about 250 chemicals which, if ingested, could send a child to the hospital. And the home has a full range of problematic chemicals (e.g., lead, asbestos, PCBs, formaldehyde, aerosols) used in household construction and insulation and in insecticides, pesticides, and herbicides outdoors.
38. *The World's Women*, ibid., p. 17.
39. Lance Hughes, "American Indians and the Energy Crisis: Interview with Lance Hughes," *Race, Poverty, and the Environment*, Vol. II, No.2, Summer 1992, pp. 5, 17.
40. Freudenberg and Zalzberg, p. 249.
41. On July 4, 1990, the *Minneapolis Star-Tribune* reported that members of the Kaibab Paiute reservation in northern Arizona were negotiating to bring about 70,000 tons of hazardous waste each year to the Kaibab Paiute reservation. An incinerator would burn the waste, and the ash would be buried on tribal land. The Paiutes stand to reap $1 million a year from the waste-burning operation. The Kaibab Paiutes and other tribes are torn between the economic gains and the integrity of their land and traditional ways.
42. *The Christian Science Monitor*, February 14, 1991, p. 18.
43. *Toxic Wastes and Race in the United States: A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites*, Commission for Racial Justice (CRJ), United Church of Christ, 105 Madison Avenue, New York, NY 10016, 1987
44. Recent mainstream media attention within the United States and Canada to what is called "environmental racism" was the topic of an important ground-breaking essay in 1970 by Nathan Hare entitled "Black Ecology." In that essay Hare argued that environmental problems *are* different for black Americans, since black and white environments differ in degree and nature. Hare presented alarming empirical data: In "black

ghettos," there is a greater degree of all varieties of pollutants (e.g., smoke, soot, dust, fly ash, fumes, gases, stench, carbon monoxide), and a heavier preponderance of rats and cockroaches (disease-spreading rodents). Blacks are exposed to more harmful and diverse sorts of environmental handicaps. Black Americans suffer disproportionately the effects of overcrowding (e.g., increased noise levels, loss of individual space, greater probability of hearing loss, more exposure to unsanitary debris), polluted housing (e.g., three out of ten units are without hot water, toilet, or bath), lack of "climate control" (e.g., of temperature and humidity) contributing to a higher proportional incidence of communicable diseases (e.g., pneumonia and influenza), shorter life expectancy, and poor nutrition during pregnancy. Hare argues that some of these ecological differentials between blacks and whites are due to racism.

45. Cynthia Hamilton, ibid., p. 43.

46. There are four specific areas in which children are physically more vulnerable than adults: food and water, home, schools, outdoor play areas. Furthermore, characteristics unique to children, especially poor children and children of color, make them particularly vulnerable to environmental hazards. Poor children are more likely to live in neighborhoods with environmental hazards; poor families lack the financial resources to remove hazards from their homes or purchase alternative, non- hazardous products; poor children are less likely to have access to health care for treatment; the families of poor children often lack the necessary political clout to insist on the clean-up of hazards in the neighborhood. In homes and schools, hazardous products (e.g., cleaning products), exposure to lead, radon, asbestos, and indoor air pollution (e.g., tobacco smoke and formaldehyde found in some carpeting, wallboard, and insulation) are particularly harmful to children since the same amount of exposure to children and adults is believed to produce higher concentrations in the smaller bodies of children. Outdoors, pesticides, harmful sun exposure, air pollution, and play in unsafe areas can result in serious health conditions in children (e.g., breathing certain kinds of asbestos fibers can increase the chance of developing chronic diseases, ground level ozone-caused air pollution can cause respiratory problems such as shortness of breath, coughing). See Dana Hughes, "What's Gotten Into Our Children," published by Children Now, 10951 West Pico Blvd., Los Angeles, CA 90064, 1990, pp. 3-5.

47. Cynthia Hamilton, "Women, Home, and Community," *woman of power: a magazine of feminism, spirituality, and politics*. Issue 20, Spring 1991, p. 42.

48. Hughes, "What's Gotten Into Our Children," p. 6.

49. Seager and Olson, p. 114.

50. Carol Cohn, "Sex and Death in the Rational World of Defense Intellectuals," *Exposing Nuclear Fallacies*, Diana E.H. Russell, ed. New York: Pergamon Press, 1989.

51. Cohn, 1989.

52. Cohn, pp. 133-134.

53. Cohn, pp. 135-137.

54. Vance Cope-Kasten, "A Portrait of Dominating Rationality," American Philosophical Association *Newsletter on Feminism and Philosophy*, Vol. 88, No. 2, March 1989, pp. 29-34.

55. Ibid.

56. Of course, suggesting the significance of these empirical connections and defending their significance are two different activities. I have suggested elsewhere (Warren, 1987, 1990) that one main source of the philosophical significance of empirical women-nature connections is *conceptual*: It is traceable to oppressive patriarchal conceptual frameworks and the behaviors they sanction. An *oppressive conceptual framework* is characterized by *five* features: 1) *Value-hierarchical thinking*, i.e., "Up-Down" thinking which attributes greater value to that which is higher or "Up" than to that which is lower or "Down"; 2) *Value dualisms*, i.e., disjunctive pairs in which the disjuncts are seen as exclusive (rather than inclusive) and oppositional (rather than complementary); 3) *Power-over conceptions of power*; 4) *Conceptions of privilege* which serve to maintain and justify the dominance of those who are "Up" over those who are "Down"; and 5) *A logic of domination*, i.e., a structure of argumentation which provides the moral justification of subordination, viz. that *superiority justifies subordination*.

    It is the last condition, the logic of domination, which is conceptually fundamental. Without it, difference would just be glorious diversity. With it, difference becomes grounds for domination and subordination, inferiorization and marginalization. Bona fide and respected cultural diversity or cultural pluralism in any system whose basic relationships are structured by a logic of domination is not possible. We must all oppose the way this logic of domination has functioned historically within different cultural contexts to justify the domination of groups deemed inferior—women and people of color, Jews, gays, and lesbians, the differently abled.

    An ecofeminist philosophical perspective on empirical women-nature connections extends this sort of feminist critique of oppressive conceptual frameworks, and the behaviors of domination they give rise to, to non-human nature. Making visible oppressive conceptual frameworks and the logic of domination which undergirds them, wherever and whenever they occur, is a central project of ecofeminist philosophy.

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American Indian Philosophy and Perceptions of the Environment

by George Cornell

George Cornell is an associate professor of English, history, and American studies at Michigan State University. He is a member of the Ojibway tribe and is a consultant in Indian education in Michigan. He has served as consultant to universities across the country and such museums as the Smithsonian Institution in Washington, D.C., and the Field Museum of Natural History in Chicago.

With all candor, it was with some reluctance that I headed for the airport and the "Human Values and the Environment Conference" in Madison, Wisconsin. I had accepted the invitation to speak at the conference some months earlier, and as the date drew near, I began to regret the decision. The conference had been expertly planned and coordinated and was scheduled to begin on October 1. It just so happens that October 1 is the opening day of bow hunting season in Michigan, and I simply cannot recall ever missing the opener for *anything*. So there I was, rushing across town to catch a plane that left well before 8 a.m. I should have been in my tree stand watching the woods come alive and hoping that a whitetail deer would walk by; but no, I had to speak at a conference on values and the environment!

The trip to the airport was fast and hectic. I arrived just as the final boarding call was announced and was the last person on the aircraft. My mood worsened as we departed for Detroit's metropolitan airport. I was seriously grousing by the time we deplaned in Detroit and began walking through endless cement corridors to the departure gate. After what seemed like miles, I arrived at the assigned gate. Surrounded by thousands of travelers, and materialism beyond description, I knew I had made a mistake—I should have been in the woods. A voice pulled me from my reverie, announcing that the plane for Madison was ready for boarding. Mechanically, I entered the plane and readied for take-off; my mood had not improved. As the plane became airborne, I reconciled myself to my fate. Oh well, there would be other years. After all, it was an environmental conference.

Trying to fill time, I removed the copy of Northwest Airlines' *World Traveler* magazine from the seat pocket in front of me. The young Elvis stamp smiled up at me from the cover. Thumbing through the magazine, I stumbled on some truly wonderful paintings by Len Steckler. Portraits of street people and images inspired by the Los Angeles riots filled the page. As I began to read the article "Life as Art" by Ellen Briska, one particular paragraph spoke directly to me:

> The questions that plagued Steckler included the deception and cynicism he saw in the world around him. A world where people "become more motivated by material value than spiritual value. You have to start thinking of where society is going and what we can do as individuals to help elevate humanity rather than denigrate it" (Bruska, p. 48).

I'm sure that everyone has had the same experience: reading something that has precise meaning at a particular point in time. Steckler was speaking to me, and it was with a renewed sense of purpose that I began to think about my upcoming talk in Madison. Without question, indigenous perceptions of the land were motivated by spiritual values and not the material, and they offer society a much needed alternative to past environmental practices.

It is very difficult to generalize about "American Indian" philosophy and perceptions of the earth. It was over 500 years ago that Cristobol Cologne, Christopher Columbus, sailed to the New World and conveyed the name Los Indios on the indigenous inhabitants of the Caribbean Islands. Over time, that phrase has been corrupted to *Indians,* and it has become a generic term which attempts to treat all Native peoples as being similar rather than recognizing the enormous diversity that existed between these peoples on the continents of the Americas.

The indigenous peoples of the Americas were dissimilar in many ways. They exhibited diversity in language, cultural practices and lived in vastly different environments. There was, though, an over-riding ethical or spiritual perception of the earth that was shared by many of these groups. The land was believed to have been created and, as such, was highly regarded in a spiritual sense.

This perception of the earth as spiritual was taught to Native children and became the foundation for much of their educational training. This notion of the earth as spiritual was brought home for me a number of years ago while I was working with the Northern Ojibwa and Cree in Ontario. A number of elders had been assembled to work on and provide guidance for a regional history of Native peoples. They spoke little or no English, and most of the work had to be accomplished through translation. There was one man to whom the group deferred on important issues. He had been named Jeremiah by a priest in the North. One morning at breakfast, I asked him, through translation, what the Ojibwa word *aki* meant. He continued eating for a bit, obviously thinking about the question. He eventually looked me right in the eye and said, "That which is sacred." Most people commonly translate *aki* to Earth in English; not Jeremiah. He made sure that the spiritual reality of the land was understood. For generations, the land has been perceived as sacred. This is common among the diverse groups of peoples who have become known as American Indians. Over those same generations, they have taught their children that the earth is sacred and to be treated with great care and respect.

Interestingly, most Americans popularly believe that American Indians are environmentally conscious. It was an idea that had been around for years and was solidified by the publication of Stewart Udall's "The Indians: First Americans, First Ecologists," in 1971. For most Americans the idea was deeply ingrained. They never thought, though, about how the "ethic" was conveyed from one generation to the next. Most Americans simply bought the notion that Indians were conservationists, without ever considering how the idea was taught to children. The earth as sacred entity was not innate to Native peoples, rather, it was a shared cultural value that was taught to children through ritual and ceremony. The spirituality of the earth was common knowledge to Native children and celebrated in numerous and diverse ways. American Indian peoples, although their beliefs varied widely, had evolved environmental ethics based on strong, personal bonds with nature and founded on their spiritual beliefs. Europeans attributed the creation of all life to God, yet they seldom allowed profit motives to be subjected to ecclesiastical doctrines. American Indian peoples, like Europeans, believed that all life forms were the result of divine action, but they, unlike Europeans, also believed that all products of the creation were sacred and to be treated with reverence. Indian populations understood that all life forms had an essence, a reason for being, and were gifts from the Creator to sustain one another. Adrian Tanner, in *Bringing Home Animals*, clearly states this relationship: "Men make gifts to the animal world, that is, to the bush, and in return are the recipients of gifts of game animals killed by the hunters" (Tanner, p. 173). This relatedness of all life was formalized by American Indians in diverse rituals and was sometimes embodied in the symbol of the circle or hoop that represented the bond between all living things.

All beings were bound together in an unending cycle of mutual dependence. Birds and insects pollinated flowers and carried seeds to new locations; beavers constructed aquatic environments in which new plant and animal life could thrive, and mammals fed upon the produce of the creation and in turn nourished other beings. Everything in nature had a purpose, and the sons and daughters of the earth were keen observers of natural events and relationships. The dependence of humans upon the well-being of other life forms carried with it important religious connotations. The relationship between Native peoples and the environment (land, plants, animals, and spirits) was dictated by spiritual perceptions and formalized through prayer, songs, and group or personal rituals. Spirits, plants, and animals had to be propitiated (appeased) so as to have their goodwill. Very often "special" or sacred plants were used in these activities. Among southwestern agriculturists, tobacco, sage, sweet grass, cedar, and corn pollen were used in ceremonies of condolence and renewal.

Numerous scholars have recorded examples of this formalized relationship between Native peoples and the land. Bruce Trigger, in *The Hurons: Farmers of the North*, states that "Tobacco sometimes was burned or thrown into the water to appease the spirits," (p. 38) while Herbert Bolton, in *The Hasinais: Southern Caddoans As Seen By The Earliest Europeans*, says, "On the eve of a deer hunt an elaborate ceremonial was performed over the head and horns of a buck, and when one was killed he must not be eaten until some mysterious message had been whispered in his ear" (p. 142).

Folk Medicine of the Delaware and Related Algonkian Indians by Gladys Tantaquidgeon contains this reference: "I was charmed by the delicate and reverential manner in which he handled the plants secured for this study. At this time he emphasized the idea of conservation, stating that one should gather only what was needed and that vegetation in general should not be subjected to ruthless treatment. Purity means much to the conservative Delaware and so the pure plants, taken from Mother Earth, must not be defiled. It is therefore important that in order to avoid contamination, no metal should come in contact with plants. . . . The Herbalist smokes and offers a prayer while the medicine

is being prepared and is always careful to stir it in the same direction—from left to right" (pp. 13, 14).

William Wildschut, in *Crow Indian Medicine Bundles,* recorded these sentiments: "In 1833, Maximilian learned of an Hidatsa medicine, composed of the neck bones of a buffalo, which was reputed to have the power of preventing the buffalo herds from removing to too great a distance from the village in which these bones were preserved. "At times, they perform the following ceremony with these bones; They take a potsherd with live coals, throw sweet-smelling grass upon it and fumigate the bones with the smoke." Maximilian understood that the Crows had a similar medicine" (p. 166).

The Sioux: Life and Customs of A Warrior Society, by Royal B. Hassrick contains the following: "Skill, knowledge and diligence were not regarded as sufficient attributes in themselves to guarantee success in hunting. There must be an understanding of the animals, and a recognition of their Spiritual qualities as well. The actions of animals, in permitting their numbers to be taken by the Sioux, demanded respect and specific propitiation in return. The animals' demands were generally brought to the Sioux in Visions" (p. 170).

Verne Dusenberry, in *The Montana Cree,* has this to offer: "Animals are looked upon with reverence. The Rocky Boy Cree, like their Canadian brothers, have a very definite set of ideas developed around the Bear. 'A Bear is not a Bear,' said Tom Gardipee, 'It's a Spirit' " (p. 80).

Dorothy Kennedy and Randy Bouchard recorded these thoughts in *Sliamnon Life, Sliamnon Lands:* "Because Salmon were so important to them, the Sliamnon people treated them with special respect. The Island Comox had a ceremony to celebrate the arrival of the year's first Sockeye Salmon. The Sliamnon, who did not catch Sockeye, celebrated instead the arrival of the first Spring (Chinook) Salmon. The ritual was the same for both groups: The man who caught the first Salmon held it up in the air and spoke to the fish, thanking it for coming to help his people and fill their stomachs. Then a messenger was sent through the village to invite the people to a feast of the boiled Salmon" (p. 26).

David Mandelbaum had this to say in *The Plains Cree:* "Montagnais-Naskapi bear ceremonialism is their major expression of institutionalized ritualism. Before slaying the Bear, the hunter addresses it in polite terms, and also offers tobacco to the carcass after the kill. A feast is made when the hunters return to camp. Menomini hunters of the bear totem (clan) also speak to the animal before they kill it, apologizing for their actions. A feast for the bear spirit is later given. The bear observances of these tribes include the same gestures required by the Plains Cree bear slayers" (p. 314).

Richard White, in *The Roots of Dependency,* offers these insights: "It was the ceremonies that ensured that the corn grew and the buffalo could be hunted. For the Pawnees' world to prosper, the power of the sky had to vitalize the earth to produce life and plenty. . . . Buffalo indeed came to "signify the entire ceremonial life." After Pawnee scouts located the herds days might pass before the hunt began. The Pawnees' concern that ritual signs were auspicious before beginning the hunt confused and irritated whites who accompanied the tribes on the plains, but to the Pawnee such rituals were as basic a part of the hunt as the shooting of arrows. The hunt was not just a subsistence activity, it was also a sacred activity and the signs had to be right" (pp. 172, 173).

Irving Goldman in an aptly titled work, *The Mouth of Heaven: An Introduction to Kwakiutl Religious Thought,* stated: "The encounter between the chiefly hunter and his prey seems to involve a vital interchange. The animal yields its life for the welfare of the hunter and of his community. The hunter dedicates himself in turn to the rituals of maintaining the continuity of the life cycle for all. In many instances the hunter does submit to ritual preparation for the hunt not, as is often thought, to insure his success, but as the correct and courteous way of meeting the animal who is going to make him a gift of his life" (p. 53).

The final example comes from an old standard, *Kwakiutl Ethnography* by Franz Boaz, edited by Helen Codere: "The Salmon and Olachen, on their arrival in the spring, and the birds returning from the South are greeted with prayers expressing gratitude for their return and a prayer that they may meet again the following year. . . . The prayers to plants used as medicine are all of similar character. A few examples will be sufficient. A person gathering roots of water hemlock sits down opposite the plants and says, 'I have come supernatural ones, I have arrived and ask you that you will, please, save the life of my wife with your water of life. . . . You life-makers, you, supernatural ones, for you are growing on this supernatural ground for the purpose of healing the sick. Now I shall dig you up, friends, that you may go and set right my wife, that she may get well' " (pp. 157,158).

As an aside, I have often wondered how different our lives might be if modern physicians still celebrated, or even acknowledged, our indebtedness to healing plants. The comments above, offered by modern scholars, clearly supports the idea that American Indian populations viewed the land, plants, and animals in spiritual terms. They conducted rituals and ceremonies to celebrate that relatedness and, most importantly,

taught their children these values. Unfortunately, this relatedness began to unravel slightly more than 500 years ago when an "unrelated culture," as it was called by William Carlos Williams, began to take possession of the land. Fortunately, there has been enormous continuity in these perceptions over time in diverse American Indian communities, and this should have been one of the great causes for celebration during the Quincentennial year. As a result of 500 years of exploitation and indifference, however, the earth (*aki*) has lost a part of her voice. As Native peoples died as a result of Virgin soil epidemics and, eventually, federal neglect, the rituals and ceremonies that perpetuated the relatedness of people to the land were supplanted by personal doctrines of rapaciousness and fear. The new cultures that took possession of the land were "unrelated" to the place and had been taught to fear the wilderness as a source of evil.

Western European populations, over the centuries, had learned that the land and pastoral settings were the realm of the demonic. William Woods points out in his Introduction to the *Casebook of Witchcraft* that Margaret Murray has "produced some remarkable evidence for the assertion that witchcraft was nothing but the relic of a much older what she calls a *'vecchia religione,'* an animistic and amoral awareness of the interaction, the interrelationship, between man and the inanimate universe with which he was surrounded" (p. ix).

Europe, during the early centuries of the first millennium, was settled by forest dwelling hordes who moved into the region from the North of Germany. Eric Maple, in *The Dark World of Witches*, tells us that "they were deeply superstitious, worshipped gods in the shape of trees and held in veneration women who were the tribal soothsayers" (p. 23). Maple continues, "The Saxons brought with them not only their magical myths but the gods of the German forests, Thor, Wotan, Loki, and a belief in the Valkyries, wild women who flew through the clouds on stormy nights. The shrines of the God of Thunder are everywhere in Eastern England and the memories of the fearsome women are preserved in legends which helped to create the witchcraft myth" (p. 24).

Christianity, as it moved north and west, had to subdue the gods of cultures it encountered. As Brian P. Levack so aptly puts it, "a Christianity, the Kingdom of Christ, spread throughout the East and the West, it was only natural that the Church fathers would consign the religions with which they were competing, both Jewish and pagan, to the Kingdom of Satan" (p. 28).

Images of evil became associated with the old religions and the people who lived in the "wilderness." As Christianity spread, the Devil and evil became more clearly defined. "His Depiction as black, for example, comes from the traditional association of black with sin rather that from the blackness of any particular pagan god. Likewise the wings derive from the Devil's status as a fallen angel, not from the fact that many pagan gods were themselves winged creatures. Nevertheless, many of the features commonly given to the Devil were originally those of pagan gods. The goatee, the cloven feet, the horns, the wrinkled skin, the nakedness and the semi-animal form bear direct reference to both the Greek and Roman god Pan and to the Celtic god Cernunnos, while the female breasts, which appear often in the seventeenth century English depictions of the Devil, come almost certainly from the fertility goddess Diana" (Levack, p. 28).

Without question, remnants of the old religions lived on in western Europe for centuries. These peoples honored and propitiated antlered figures and worshipped in nature. Jeffery B. Russell, in *A History of Witchcraft*, contends that "Horns (antlers) are a worldwide symbol of power, fertility, and plenitude of game," and that these images were eventually transformed to represent evil (p. 40). These associations were cemented by the publication of Pope Innocent the VIII's Papal Bull of 1484 which denounced witchcraft as a form of heresy and a threat to the well-being of the contemporary church.

The Roman Catholic Church at this time was under extraordinary pressure and heretics (witches) were one of the identified causes for the problems of the order. According to Hugh Trevor-Roper in *Religion, the Reformation, and Social Change*, persecutions of rural mountain dwellers in Catholic Europe had been going on for two centuries prior to the publication of Innocent the VIII's proclamation. The issuance of the Papal Bull legitimized the existence of witches (evil) and called for a stringent defense of the faith.

Two years later, in 1486, Dominicans Jakob Sprenger and Heinrich Kramer, responded to the call by publishing the *Malleus Maleficarum*, one of the most important works published in western letters. The title of the work *Malleus Maleficarum* literally translates to the "Hammer of Witches," and the book rapidly became the manual for the detection and persecution of witches in western Europe. This single book and the consequent "witch craze" that swept the continent, would result in the deaths of hundreds of thousands of human beings over the next 200 years. Many of the human beings tortured and persecuted as witches were women. Allegations of witchcraft had to be investigated and the *Malleus*

Maleficarum provided the tool for the inquisitors to do "God's work."

In the name of the Christian God, innumerable people were poked, prodded, burned, scalded and torn apart. Torture was the vehicle to elicit confessions, and it was applied liberally and with much gusto. Would-be saints inflicted undescribable pain in their quest to bring heretics to salvation. As the torture continued, the questions were put to the victim: "Where did the devil come to you?" "Where were you seduced to evil?" As the answers came forth, which eventually they must under such conditions, an image began to emerge. The "seductions" took place in wooded areas or in pastoral settings, rarely in the city or homes of the accused.

It was common knowledge in Europe that the rural populations of the Alps and Pyrenees had long been considered heretics and that animals and animal symbolism represented dangers to the human soul. Witches were also believed to be aided by animals that served as their "familiars" to help them do evil works. Long-standing associations between people, rural environments, and animals began to take on the formalized demonic dimensions which they had been acquiring since the advent of Christianity in western Europe. The "wilderness" became strongly associated with evil in the confessions of accused "witches," while urban areas appeared more and more immune to demonic threats. In other words, as the land was pacified of pagan or heathen influences by the church and the inquisitors, it became safe for Christian occupation. The land and its evil influences were to be feared until they were conquered and brought under the dominion of the Christian God.

Of course, the people, mostly women, who were being tortured to confess their "transgressions" were not really witches at all. Rather they were the poor and the deformed, the sick and the unprotected. Women were particularly suspect, especially unmarried women and women who treated the ill and assisted in childbirth. Contemporary society viewed women as weak and imperfect, and they were the least able to defend themselves in a patriarchal culture that demanded compliance and obedience. Accusations of witchcraft were, in fact, socio-political tools that reinforced the status quo—the order of things. The old religions with their emphasis on matriarchal power were held in check; the Jews and the Moors could be singled out for persecution as heretics, and likewise any other groups which dared to deviate could be controlled. The power of the church was reinforced in the ability to appoint and sanction the actions of inquisitors. Equally as important was the stabilizing effect that accusations of witchcraft had on maintaining a highly stratified class system and ascribed roles and status for members of those groups.

As an outgrowth of the witchcraft phenomenon, and most certainly after the publication of the *Malleus Maleficarum* and the consequent trials and executions, Europeans learned to fear the wilderness as a source of evil. This perception was reinforced by the power and doctrines of Christianity, even after the Reformation. Christ had been tempted in the desert by the devil, and wilderness peoples had been defeated and displaced in the name of civilization and orthodoxy. As William Woods points out, "Our Iron Age ancestors drove their more primitive neighbors into the forests, and there these people lived on for centuries in mound dwellings almost indistinguishable from the surrounding vegetation. They were small, swift, dark (a different race, in fact), and it seems fairly evident that they survived in England and western Europe well into the seventeenth century. They were said to have a great knowledge of herbs, both for poisoning and for curing sickness . . . " (p. xii).

Their gods were supplanted by Christ, and their symbols, rituals and myths became the trademarks of the devil. More importantly, the "uncivilized" lands that rural/tribal peoples occupied became firmly associated with the Great Adversary himself, Lucifer.

European populations had been conditioned by the events and information of the day to view the land as a potential source of evil. Most certainly, peoples who lived on the land and celebrated antlered beings were also under the spell of demonic influences. It is not ironic that Europeans, when they came in contact with indigenous peoples in the New World, viewed them as demons and devils. These perceptions were the unfortunate, yet logical, outgrowth of centuries of inquisitions bent on seeking out and destroying "evil." American Indians and the lands they possessed needed to be subdued: It was God's will. The death of thousands of Indians as a result of the introduction of unknown diseases was viewed as a sign, a providence from God, clearing the land of demonic influences. The land needed to be pacified and used for the glory of God and the profit of "man."

In reality, American Indian populations were no more witches than poor women who effected cures in sixteenth-century Europe were. Neither were the agents of devils or demons, yet both were persecuted to maintain class privilege and Christian superiority. Just as these groups of people were subdued, so was the land. And as these people and lands were subdued, so was the voice of Earth. The voice of the people, the voice of the land, was negated as "unrelated cultures" took possession of it.

That has been our collective history for the last 500 years. The land has been subdued, as well as indigenous peoples and their animal relatives. The question facing us know is: What do we do about it? If we are interested in correcting, to some degree, the past and insuring sound environmental policy for our children, where do we start? I think we start by acknowledging our folly of arrogance. As a species, we know what we know, but we must also be able to admit what we don't know. That seems to be a problem for people. We need to stop being so humancentric in our relationship to the land. We need to start thinking about the needs of other species, and how things affect them. If we recognize our folly of arrogance, we must become more deliberate in our actions, because we don't always know the consequences of our actions. Some American Indian groups referred to the world as the Great Mystery. That reference is an admission that people don't understand everything, there are always mysteries. We should be careful when we tamper with things we don't fully understand.

In addition, we need to teach our children to be grateful for the gifts of the earth. This is an important value that we can share with our children. The earth is perceived as having spiritual qualities by all major world religions. We can teach children that the earth is sacred and that we have an obligation to respect and care for our planet.

We also need to re-create or continue rituals and ceremonies to promote the earth's well-being, and for our own psychic healing. If we don't have these rituals or ceremonies as a part of our contemporary life, *we need to create them.* It seems to be perfectly logical that an environmentally conscious society can *invent* ceremonies or rituals that celebrate the relatedness of people to the land. These rituals and ceremonies must become contemporary to our children's generation. As a starting point for these new environmental traditions, we might focus on Thanksgiving, which is a truly American holiday, and incorporate small rituals which promote environmental ethics in our children. Perhaps with the help of a truly "environmental president" we can participate in a day of national thanksgiving for the bounty of the earth.

It is also very important that the churches and religions of the world implement rituals and ceremonies that promote personal ethics in relationship to the land, plants, and animals. Equally as important, we need to recognize that indigenous peoples, even after 500 years, can shed light on how we face and meet the future. George Bird Grinnell probably summed it up best in 1921 when he said:

> The Indian's life was passed in the open air and in close contact with nature. He drew his sustenance from the earth and from wild creatures that lived upon it. He was part of nature, and better than anything else he knew nature. A close and constantly watchful observer, nothing escaped his eye. He read the signs of the earth and the sky, and the movements of birds and animals, knew what these things meant, and governed his acts by what these signs told him (pp.6,7).

It is time to return to this wisdom and give voice to the earth.

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The Islamic View of the Environment

by Seyyed Hossein Nasr

Seyyed Hossein Nasr is professor of Islamic studies at George Washington University and professor-at-large in Islamics at Cornell University. He is a former dean and vice-chancellor of Tehran University where he taught history and philosophy for twenty-one years. He has published many books and is supervising the creation of a major series for public television titled Islam and the West.

Professor Seyyed Hossein Nasr expressed himself as the odd-man-out at the conference because most of the issues addressed came within Western society, with major parts of the globe including Southeast Asia, East Asia, and non-Muslim Africa being left out. He spoke not only as a person who now lives in America and belongs to an Islamic community which has about six million followers, but also as a person who speaks for the one billion Islamic people in the world.

The following is a summary of his presentation in which he addressed the values that can be drawn from Islamic tradition concerning the environment. ***Charlotte Zieve***

The environmental crisis is essentially a spiritual crisis which is now reflected outwardly. Solutions which only pay attention to the external symptoms rather than the cause are merely cosmetics.

The first question is, *So what?* What is the significance of the Islamic view of the environment? Of what significance is that for a predominantly American audience? There are at least three elements to consider.

The first, as already mentioned, is that you have a sizable Islamic community in this country and in the world. The second is that what happens in other places in the world affects places like Wisconsin—therefore you must be concerned with how people in other places think and how they act relative to the environment. The third reason is that Islam, as the third member of the Abrahamic family of religions, has a view of nature which is very different from the aggressive attitude against nature which developed in the West and which was condoned and even supported by many religious authorities on the basis of a very particular reading of the Old Testament. The Islamic view is extremely important to include in the interaction of these religions as they undertake a theological reappraisal of nature. The central reality of Islamic religion is the Quran. In the Quran the revelation is shared by human beings and nature. The Quranic revelation sometimes addresses other creatures besides human beings, and the Quran is also revealed to nature; therefore nature participates from the very beginning in the cosmic reality of the religion. In Islamic theology no clear distinction is made between the natural and the supernatural.

The word in Arabic which is the key to this, *barakah*, is extremely difficult to translate. It means both "grace" and "that which flows in the arteries of the universe." It is that which makes it possible for a bird to fly upward, for us to feel elated, for that beautiful tree to shine in the sun. At the same time it is that which comes from the rites of the religion—what we call "grace" in a theological sense in Christianity. This word *barakah* makes the Islamic point of view of nature very similar to that of the American Indians. The verses of the Quran sometimes address non-humans or take non-human parts of creation as witness as far as the revelation is concerned.

According to the Quran, all of creation is a sign of God. This view is also held by certain Jewish and Christian philosophers of the Middle Ages. The massacre of the idea that things are vestiges of God occurred in the seventeenth century through the scientific revolution.

There are levels of empathy between human beings and nature from the most outward, in which almost all human beings who are sane enjoy the beauty of this lake, to the highest level, in which this lake is a direct depiction of the spiritual realities in God himself.[1] This does not mean a degradation of nature by its subjugation to a higher reality making nature irrelevant. On the contrary, it means that nature depicts a reality which belongs awesomely to God himself. Those who destroy nature think it is an independent order of reality so that their acts do not have an ultimately negative religious significance. The idea that nature depicts high realities is also found in the American Indian tradition as described by Black Elk when he said each thing in this world represents the supreme spirit.[2] This is not far from the Islamic view which asserts there exists an empathy between human beings and nature all the way from the most external to the most inward. The most inward does not negate the external.

Another element of ecological significance is that nature participates in mankind's final end and, therefore, to destroy nature is to destroy *our* final end. It is not only mankind who is resurrected in the divine presence but also all of God's creation. Therefore the desecration and destruction of nature is also defiling what concerns us ultimately.

Yet another important element of the teaching of Islam concerning nature and the relation between human beings and the environment is the limit that Islam places upon the power of human beings. Totally alien to the Islamic perspective is the idea that man can exercise complete rights and power over everything on the earth. There are limits set to that power by the fact that God and not man created the earth. We don't have the power to *create* the earth but we must *share in the taking care* of it. The responsibility for the environment issues from the function of the *kh'lafah*, or steward-ship, which is incumbent upon all human beings.

The reason that modern science did not develop in the Islamic world is the refusal of Islam to divorce: (1) knowledge from the sacred, and (2) the science of nature from the higher sciences which emphasize the balance between humanity and the natural environment. Islam provided much of the science for the fourteenth and fifteenth centuries without which there would not have been the mathematics, medicine, or astronomy of the fifteenth century. The year 1492 was very significant not only because Columbus "discovered" America, but also because the last Islamic kingdom in Spain was defeated and the Muslims and Jews of Spain either went underground or left the country. It was the turning point in which Western civilization went in one direction and Islam went in another.

The rights of nature and creatures of nature, including the elements within our body, are considered by Islam to be independent of us. Human rights are not that absolute as to snuff out and destroy the rights of other creatures—rights which come from God.

The acts Muslims are supposed to perform and what Islam teaches are contained in the *Shari'ah*—the divine law of Islam. The *Shari'ah*, if lived fully, governs the details of human life including our relationship with plants and animals and with the inanimate world, including water. For example, the pollution of water is against Islamic law. The fact that every stream in big Islamic cities is dirty is very telling as to what has happened to classical Islamic civilization under the impact of the events of the last two to three centuries. Islamic civilization, as it existed for over a thousand years, produced much in the fields of art and science, philosophy and theology. But when we look upon the Islamic world today, we see that as far as a relationship with the environment is concerned, the traditional teachings are not being fully practiced.

The Islamic world, like other non-Western societies, has been on the receiving end of technologies from the West which are environmentally negative. Not only does the Islamic world receive technology from the West, but it receives the crumbs of that technology. Cars in Karachi pollute the air even more than they do in Boston because their filter systems do not work as well. If a Middle East ruler were to say, "We are not going to sell our oil any more, we are just going to shut off the oil wells and get back on our camels to preserve air quality," needless to say, there would be trouble and in a few hours he would be deposed. The excuse would be that it is against the modern world.

You saw what happened two years ago when Iraq moved to invade Saudi Arabia. That was a terrible act, but it was an act between two Arab nations. What did it have to do with us in America? It had a lot to do, because it had to do with oil. Other-wise it would be like Bosnia, where a five-hundred-year-old Islamic culture is being totally obliterated, and no one does anything about the "racial cleansing" going on. The reality is that whether you are an Islamic monarchy, republic, dictatorship, or religious government, and whether you are in Morocco, Iran, or Egypt, no matter what form of government you have, you are on the receiving end of a technology which itself is environmentally destructive.

The second important factor which has helped to destroy the Islamic relation to the environment is population growth. It must be added, however, that although the growth of population is a problem in the Islamic world, it is a problem which did not originate *from within* the Islamic world. It originated with the introduction of modern medicine which eradicated such diseases as malaria and also caused the population to explode. In the old days a family would have six or seven children, of which two or three would survive. The population remained fairly stable. Today the Islamic world is at the forefront of the population explosion.

Something even more catastrophic as far as the environment is concerned is the uprooting of pastoral populations and their flight into the cities. Now a vast population of uprooted people are coming into big cities, people who back home in their villages would never have thought of polluting the water or cutting the branch of a tree. They were very careful with their often-times scarce resources. But once in Teheran, Cairo, and Karachi, they ceased to care. In a sense they are put into a world in which they don't care what happens.

Add to all of this the lack of attention of both political and religious leaders, through much of the Islamic world, to issues of the environment. Until very recently they felt the whole question of the environment was a kind of gimmick to prevent these countries from having

the same fruits of a consumer society as the West. Many Muslim and also other leaders from the so-called "Third World" point out that the United States, which has 5 percent of the population of the globe, uses 25 percent of its energy. A baby born in America or Germany uses forty times as many natural resources as a baby born in Bangladesh. It is only in the last decade or so that these ideas are being corrected. The first Islamic country in Asia that began to think seriously of the environment is Iran, which has established a natural park system and has tried to some extent to develop alternative forms of energy and technology.

What has to be done? We must bring back the traditional Islamic religious and spiritual teachings about nature which impregnates Persian poetry, for example, and hope that the West, which has responsibility for having created this environmental crisis, has both the wisdom and power to slow down the juggernaut of destruction. Once that is done there will be time for other alternative philosophies of nature to be presented and for the Islamic tradition to play a very important role on a global scale in this crucial subject so vital for the very survival of humanity.

Notes

1. Professor Nasr is referring to the view of Lake Mendota as seen from the Wisconsin Conference Center.

2. John Neihart, *Blake Elk Speaks*. Lincoln: University of Nebraska Press, 1979. Also J. Brown, *The Sacred Pipe*. New York: Penguin Books, 1986.

The Road From Rio: A Christian Perspective

by Larry L. Rasmussen

Professor Rasmussen teaches social ethics at the University Theological Seminary in New York City. He is a member of the Evangelical Lutheran Church of America and his current work in Christian ethics includes an analysis of power, methodological issues in Bible and ethics, peace studies, and technology and ecology. He has written numerous books and essays.

The first "Earth Summit," the largest meeting ever of heads of state (178 national delegations) and non-governmental organizations (more than 1400), took place in Rio de Janeiro, Brazil, in June 1992. Organized as the United Nations Conference on Environment and Development (UNCED), its purpose was to put in place essential steps for collective international action to stem the riptide of environmental degradation and foster sustainable development. While assessments of this historic meeting have varied from monumental success to monumental failure, there can be no question of its significance in mapping what the world faces as it lurches toward the twenty-first century.

Whether focus is given the first moves toward an "Earth Charter" (something of a Magna Carta ethic for treatment of the earth); *Agenda 21* (the 800-page compendium of every conceivable eco-issue); the conventions negotiated on climate change, biodiversity, and forests; or the explosion of local, regional, national, and transnational efforts by the non-governmental organizations (NGOs) from around the world, the outcome was the same—the recognition that the world must be set on a track that promotes economic development everywhere—North, South, East, West—in ways compatible with the biosphere's own unforgiving requirements. This was coupled with the sober recognition that the world is presently on another track, headed in a different and dangerous direction.

Differently said, the world did not gather in Rio out of ardent love and concern for the non-human environment. It gathered there because the 1970s and 1980s accelerated rather than reversed global environmental deterioration at the same time that the ranks of the impoverished grew catastrophically. Most of all, we gathered because more and more planet watchers came to the brutal recognition that the present course is utterly unsustainable and has been for a long while, well before the seventies and eighties. Simply put, humans as a species cannot afford the modern world, nor can the rest of nature. "The world of the born" is on a collision course with "the world of the may" (e.e. cummings). Indeed, the world of the born is on a collision course with itself, if you or your children or grandchildren were born in the seventies, eighties, or nineties. Thus while Shridath Ramphal correctly says that in the post-Cold War world "achieving a better life for hundreds of millions of poor while safeguarding the environment" is "the major issue confronting human society" (Ramphal, p. 191), there is, at the same time, no large-scale alternative model to development as the kind of economic growth we all know and depend upon but which is devouring us as we devour it. A contagious capitalism of our sort is no more environmentally and humanly viable over the long haul than disastrous socialism was over the shorter term. That is why the Earth Summit was convened and why it calls with urgency for another way.

What might Christian faith bring to the trek we must now all make on the road from Rio? How might Christians respond to the quest for another path, for sustainable development, for—dare we say it—a new world, indeed, creation made new on this little marbled gem?

The argument is easily made that Christians are disqualified even before we put our toes to the starting blocks. Christianity has been roundly indicted for its contributions *to* the eco-crisis, a matter summarized in one bill of particulars as a faith which has been largely anthropocentric in conception and practice; dualistic in its separations of spirit and matter, mind and body, humanity and (the rest of) nature; encouraging of an earth- and world-denying spirituality with deep ambivalence about sensuality; and a strong contributor to an industrial, technological, and urban world driven by modern engines of economic growth and unprecedented consumption. And that is the abbreviated version!

If Christians are permitted at the starting line yet another time, let it be clear—pardon the mixed metaphors—that the patterns of deep renewal—death and resurrection, to use Christian symbols themselves—thus pertain to inherited renditions of Christian faith every bit as much as to mass renewal in society. Being transformed "by the renewing of [our] minds" (Romans 12) may well be, as some history watchers claim, a general imperative whenever epochal shifts are the order of the day. We only add that it is also an imperative for Western Christianity as the single most promi-

nent religious tradition contributing to the making of the modern world, a matter about which until recently we boasted mightily and about which we now harbor the gravest doubts.

At the same time, Christianity is clearly not a modern phenomenon itself. It is an ancient one whose formative story, symbols, and practices were laid down millennia ago in the Middle East and whose life over centuries has taken up residence in countless diverse cultures scattered North, South, East, and West across the globe. As a living faith with long, tangled roots in many soils, it has known both tenacious continuities and striking discontinuities. It has borne fruit both wholesome and rotten. Even under indictment and in need of its own renewal (a condition pertaining to most of us most of the time!), then, Christian faith might yet be asked, What motifs could become elements of a constructive response to an ethic for sustainable living?

Considering the outlandish size of that question, this treatment will be strikingly brief. It articulates only a basic posture, an orientation, the fundamental lines of a Christian moral vision. That is far less than a full response to what the Earth Summit requires of all of us. (A full response requires concrete policies as well as a general direction, and specific guides for action as well as prized values, virtues, and obligations.) Echoing E. F. Schumacher, I turn, then, to some of the "think withs" we might use to "think about" a way of life worthy of sustainable development.

Foundational to any Christian response are the basic moral lineaments of the Hebrew Bible as these manifest the character and presence of God. The distinctive theme of Jewish faith was not the recognition of a power or force in the universe which transcended human powers and suffused all nature with its energy. That it was not in no way denies or scorns the fact that the presence and power of the holy is a universal religious experience which reaches at least as far back as human records do. In our own time, some circles of the religiously-sensitive environmentalist movement have experienced this sense of the holy anew and given it a name and place. Its name is "creation spirituality," and its place is worthy. But the rather distinctive Hebrew and Jewish claim was that this sacred power in the universe was a *moral* force that rejected the inevitability of oppression and injustice and commanded and made possible transformation of the world on the terms of community.

Hebrew conviction about this power led to the strong ethical sense and community sense that we are morally responsible before God for the condition of the world. In the ancient world this was an extraordinary affirmation of human agency and freedom. It was the claim, set down near the very outset of the recorded human venture itself, that co-participation with God in creation is the human vocation. Few claims could have stood in sharper contrast to traditions and philosophies which pictured existence as essentially fated. Few could have contrasted more with experiences of nature as an ensemble of great uncontrollable powers which bear down upon us, powers to be prayed to, appeased, submitted to, often feared.

The foundations of this claim that God was not a capricious power but the power for transformation toward a moral order in which humans played an important role was, of course, in the experience of the people's own transformation. The God who "knew" the sufferings of slaves and heard their cries, this God of divine pathos, was the God whose power was experienced as the power for peoplehood and freedom. This God created a people from a ragtag band who were *no* people. This God hewed a way where there was none. This one mysterious God in the pantheon of gods was in fact a revolution in gods who, in Miriam's and Hannah's words and still later Mary's, pulled down princes from their thrones and exalted the lowly, filled the hungry with good things, and sent the rich empty away (I Samuel 2; Luke 1).

This same God, these former slaves came to believe, also held this new people responsible for the shape and condition of the community and world that was theirs. Their vocation as a saved people was nothing less than to give social and community shape to the ways of the God who redeemed them and to do so in ways which made that God's own ways of justice and mercy their own. In short, the governing power of the universe was not experienced or understood in the first instance as the principle of order and necessity—that might sum up both fate and pharaoh quite well—but the principle of freedom and responsible moral agency. In Michael Lerner's simple, precise formulation: "God became power joined with the injunction to improve the world" (Michael Lerner, p. 130).

What began with Moses and the first recorded slave rebellion soon becomes, in the biblical account, a paradigm of liberation and transformation as a way of life. With God, ordinary people—indeed the apparently powerless—can subvert deeply entrenched powers and effect a new world. Again in Lerner's words, Judaism was "not just a religion about how wonderful the physical world is but a religion that insisted there is nothing inevitable about the hierarchies of the social world" (Lerner, ibid., p. 131). To this account need only be added that Jesus and his movement maintained the

outrageously hopeful conviction that with this God new creation can happen at the waiting hands of a small number of very common, though spirit-filled, folk.

At the same time, Judaism *was* "a religion about how wonderful the physical world is." The liberating God was the creator of the universe itself. This was the astounding discovery that dawned on that struggling band of long-term wilderness campers. Thus the Hebrew Bible again and again celebrates the immense grandeur of the creation, gives thanks for the breathe of life that animates all creatures—it is nothing less than the presence of the same spirit which brooded over the waters of first creation—and marvels at the detail of a gracious God's good creation. A universal moral order is even to be discerned in creation itself, it is claimed. Human beings ought properly to stand in awe of this universe, respect and learn from it. This includes, Job says, learning from the animals, birds, plants, and fish (Chapter 12). They too are part and parcel of creation. Like the human earth creature "Adam," they too are all from "adamah." Like us, their co-siblings, they too are Earth creatures from the soil itself, destined, like us, to return there.

The salient point of Judaism, however, is that these themes weave a single strand, a kind of double helix genetic ribbon of the faith: the power that created the universe and sustains it from day-to-day is the same power that "champions the powerless and creates the demand for a moral universe infused with justice and compassion" (Lerner, ibid., p. 131). Psalm 77 is a striking example of this double theme become a single one. Listen as the anonymous psalmist moves almost unconsciously between the ways of God as creator and as liberator. The psalmist does not begin, however, in praise but in despondency, hardly able to speak. He or she is racked by the world's troubles and fearful that God has forgotten to be gracious and has exchanged compassion for anger. So the psalmist makes every effort to remember the character of the God of Israel and reaches deep to confess the following in awe, fear, and gratitude.

> Remembering Yahweh's achievements,
> remembering your marvels in the past,
> I reflect on all that you did,
> I ponder on all your achievements.
>
> God, your ways are holy!
> What god so great as God?
> You are the God who did marvelous things
> and forced nations to acknowledge your power,
> and your own arm redeeming your people,
> the sons of Jacob and Joseph.
> When the waters saw it was you, God,
> when the waters saw it was you, they recoiled,
> shuddering to their depths.
> The clouds poured down water,
> the sky thundered,
> your arrows darted out.
>
> Your thunder crashed as it rolled,
> your lightning lit up the world,
> the earth shuddered and quaked.
> You strode across the sea,
> you marched across the ocean,
> but your steps could not be seen.
>
> You guided your people like a flock
> by the hands of Moses and Aaron.

Psalm 77: 11-20. *The Jerusalem Bible*

Lerner says it well: "Celebration of the grandeur of creation goes hand in hand with transformation of the social world" (Lerner, ibid., p. 131). He goes on to cite Sabbath as a lovely summary symbol of this. Sabbath is both a day to give thanks for life and the blessing of creation and a day to remember liberation from slavery and our vocation of doxological witness to God as creator and redeemer. The climax of creation is not the arrival of human earth creatures, we might note in passing, but the arrival of sabbath and its celebration in rest, harmony, and enjoyment for all creatures and God.

Whatever else a Christian response to Rio is, it begins here in the strong biblical sense of moral responsibility before the God who is both the power in and of creation and the transcending power who beckons creation's transformation in the steady direction of justice and compassion. Before and with this God, we are responsible.

A closer look at a few key notions circulating within this general moral framework may yield surprising insights. We turn to entries as basic to Christian vocabulary as creation, justice, neighbor, and mercy.

Creation. "Creation" isn't a synonym for unperturbed nature as gazed upon by awe-struck humans, or absent them altogether. It is a theological word for the totality of all things, together, before God, and in whatever blessed, despoiled, or hapless condition may prevail at the moment. The noun form is largely our doing, since "creation" is invariably found in verb form in the Hebrew scriptures, thereby underscoring the ongoing and dynamic biblical sense of a yet unfinished world and cosmos. One translation nicely compromised the noun and verb sense when it translated the beginning of book 1, page 1, verse 1 as "In the beginning of creation, God. . ."

The energy, dynamism, and processive character of creation is less the Christian contention, however, than the confession that creation is one and is God's. The rest of us are precious tenant farmers who, like all the generations before us and after, will live a little while and then be recycled to the humble humus from which we humans humbly came. That all creation is *one* is not to say creation is harmonious, however. That would belie the presence and power of evil, not to say the sheer gross imperfection of things still awaiting redemption. New Age and other romantic fantasies about an already harmonious creation often indulge this understandable hope and heresy, oftentimes in Christian form. But to say that creation is one is only to recognize that all will be redeemed, together, or nothing at all. Such is the prophet's and priest's conviction as well as the psalmist's and Paul's. To say creation is one is also to assert the "bundled" nature of life together, the irrepressible unity of all things in heaven and on earth.

The 1972 United Nations Conference on the Environment, that meeting of shoulders in Stockholm upon which Rio and the Earth Summit came to stand, included the following testimony from its preparatory volume by René Dubos and Barbara Ward.

> The astonishing thing about our deepened understanding of reality over the last four or five decades is the degree to which it confirms and reinforces so many of the older insights of humanity. The philosophers told us we were one, part of a greater unity that transcends our local drives and needs. They told us that all living things are held together in a most intricate web of inter- dependence. They told us that aggression and violence, blindly breaking down the delicate relationships of existence, could lead to destruction and death. These were, if you like, intuitions drawn in the main from the study of human societies and behavior. What we now learn is that they are factual descriptions of the way in which our universe actually works.
>
> *Only One World*, p. 65.

The title of that volume, *Only One World*, nicely serves to summarize much of the Christian notion of creation, provided *world* is stretched to *cosmos* and all of it together is seen in and before that awesome Ancient of Days in whom we live and move and have our own, and only, being.

Justice. "Justice" is a puzzling and contested notion for us. Tapping the meaning of justice in the cosmologies of the Ancient Near East may add to this, rather than clarify. Yet sometimes the greatest service is rendered by perspectives genuinely other than our own. We learn from views and convictions strange enough and strong enough to lift us from our well-worn ruts and deposit us in different places. (The Earth Summit is banking on some such jarring as this.)

Justice in those ancient cosmologies was a conviction about God and the dynamics of creation itself. The creating of the world and the vast canopy enveloping it was a mighty movement from chaos—matter as "formless and void"—toward more harmonious order. Yet it was never wholly accomplished. Chaos survives and continually intrudes, even now blithely playing as a Leviathan in the deep, while human beings have to toil the day long for their fare—to call up a psalmist's images again (Psalms 104). A struggle between ongoing creation and living chaos is thus joined and never ceases in the world as we know it. Its forms are many, often named as "evil spirits" in our benighted, pre-Enlightenment days: famine and disease, hunger and plagues, family discord and community estrangement, mental illness, the ways of war and corruption, lies and deceit, plain craziness. It was a pervasive disorder which, deeply embedded, violated creation itself from within. It was occasionally labeled by Christian theologians "original sin" and by Jewish thinkers "the evil impulse," although most Christians and Jews have ended up vacillating in their explanations. We have never been able to decide whether this deep disorder in life is the work of some inexplicable half-external evil force that virtually possesses us or the clear consequence of human creation, choice, and responsibility.

Thinking about justice stems from this Hebrew understanding that cosmic reality struggles, in God, to be a harmonious world order of and for all creatures great and small. When the early biblical confession says again and again that Yahweh is "just," it means God again and again fashions beneficent order from dooming chaos, restrains the chaos, and balances things anew when chaos triumphs. In the prophetic oracles, which come much later, rising and falling with kingship and nationhood itself, whole empires spiral into decline when their injustice provokes countervailing holy wrath. All this gives rise to a deep notion in Judaism that whatever evidence there is for the historical triumph of injustice and chaos—and it is often massive—the universe is nonetheless a moral one, bent by God's own struggle to arch in the direction of redemption and eventual harmony, even perfection. (As an aside, precisely this bib-

lical conviction about justice sustained Martin Luther King.)

Though it is strange to minds like ours, wholly formed on this side of heightened human power to alter natural environments radically, Hebrew minds did not separate history from nature. Indeed, no word for non-human nature as a separate reality exists in biblical Hebrew. Justice as a concept thus does not participate in such distinctions. Justice may refer one time to intra-human events and relationships—Pharaoh's horses and riders are tossed into the sea—and another time to events we assign to nature and what the insurance companies call "acts of God"—Noah and the tale of the flood.

If we were suddenly to set aside these biblical lenses for viewing the meaning of justice and put on an imaginative pair borrowed from some current environmentalists and feminists, we would call "justice" simply "right relatedness." Then we would begin to realize that justice pertains to humans and non-humans alike. We would next realize that the Sabbath and Jubilee laws begin to make a sense for which modernity has only had contempt. The planet as a whole would suddenly be understood as the basic unit for justice itself, with greatest attention focused on those who suffer most, human and non-human. Trees would have standing; land reform would go beyond arguments about utter ownership; water would be a precious, guarded, and safe resource; the poverty of millions would be defined as an environmental issue—only to begin the list.

Let it be clear, for the sake of contrast and understanding, that this notion of justice is far more comprehensive than that which has reigned in Anglo-Saxon jurisprudence, social philosophy, moral traditions, and daily habits. These have focused justice on liberty and/or equality. As ideals, justice as liberty has meant guaranteeing the widest range of individual choice commensurate with such choice for others, while justice as equality has meant guaranteeing a comparative allotment of goods, services, and opportunities at a humane level for the largest number of citizens possible. Legislation, policies, and regulations of all kinds have then turned on which concepts and compromises come to prevail in the mix of these. Vital as liberty and equality are, they share a common anthropocentrism and thus restrict justice to matters of human welfare alone, directly or indirectly. By contrast, justice as comprehensive right-relatedness means the rendering, amid limited resources and the conditions of a still chaotic world, of whatever is required for the fullest possible flourishing of creation. This notion of justice is a worthy moral relic, not of any Golden Age or decade of untainted insight, but of a nonetheless gifted season when cosmologies were mythic and whole. (They were often also empirically very wrong, however, and concretely unjust, as their living remnants of patriarchy, for example, often testify. The post-Rio effort is to learn anew *from* them, not to *repeat* them. Every cosmology and its way of life is subject to moral assessment on the basis of concrete practices.)

Neighbor. Jesus the Jew, in whom Christians see the fullest expression of God possible in human form, radicalizes the notion of neighbor by not only insisting that the enemy is neighbor but that we are to treat all neighbors, including the enemy, with a regard equal to the regard we accord ourselves in love. We are to use the same framework of positive reference when we consider others as we use for ourselves. The love commandment and Golden Rule are by now so much the pedestrian repetition of childhood moral instruction and catechism that we hardly expect anything explosive, or even relevant, from them.

But consider what happens when neighbor love is extended in ways illumined by "creation" and "justice" and implied by an ethic of living sustainably in our contracting world. Then neighbor embraces, just as H. Richard Niebuhr argued, "all that participates in being," organic and inorganic, present, past, and future (Niebuhr, p. 38). "Neighbor," then, means a responsibility inherited from the ancestors and turned toward posterity. It means being entrusted with the wealth of nature and the treasures of society for the sake of plant, human, and other animal life alike. It means responsibility for what neighbor literally means—the nigh one—but it means accountability to the far one as well, both in time and space. And it means enemy welfare as well as those for whom we willingly sacrifice. In a word, the neighbor in a million guises is the articulated form of creation to whom justice, as the fullest possible flourishing of creation, is due.

This sampling in the dictionary of faith could go on to other entries—peace, love, grace, hope, faith itself. A well-rounded, "ecological" investigation would do so. Here the intention has been only to suggest and encourage the kind of renewing of our minds the Earth Summit and Christian faith both call for. We close with but one additional element.

Mercy. "Compassion" and "forgiveness" might have been chosen as well. While not precisely the same, they too specify that quiet power we sinners all need to face a broken, despoiled world and decisively to begin anew without destroying our neighbors and ourselves in the process. *Tikkun olam*, the healing and mending of the world, cannot proceed without forgiveness and ox-

ygen. For those who are honest and clear-eyed about our condition, our efforts, if lacking mercy, dissolve into blaming, recrimination, self-loathing, and repeated patterns of abuse. There was enough of that to go around in Rio. Honesty and candor, if lacking mercy, means remorse and grieving for planetary destruction as well as guilt toward the present and future generations, but without consolation or the renewing energy of hope.

For those who are dishonest about our condition, mostly "madmen and economists" (the phrase is Kenneth Boulding's) and the unrighteous who prosper, *tikkun olam* doesn't happen at all. Today that means only one thing: we perish. But it is in fact God's own deep source of strength we tap when in mercy we accept and have compassion for our own limitations and everyone else's as well. Mercy is a kind of power found on the home turf of death itself, a tonic to revive the weary, despondent, and overwhelmed. It, or compassion and forgiveness, is the shape of grace when we all need to find our way together toward newness of life in a different way of life. If healing is to be had, it will begin in mercy. Such an old word. Another moral relic that will never make the *New York Times* or MTV! Christians see it come to full life in Jesus of Nazareth. Whether recognized there or elsewhere, the peoples begged for it in a thousand unnamed ways in Rio.

The Earth Summit was a gathering of growing alarm at the incremental nature of an enveloping eco-crisis. The alarm was compounded because, while "every year the earth's forest cover is diminished, its topsoil is further eroded, the ozone layer is thinned, the oceans and air are more polluted, fresh water is contaminated, and unknown numbers of species become extinct. . . . the nations of the world cannot seem to agree on an effective joint response" (Steve Lerner, p. xi). Especially in matters of economy and the environment, we insist upon holding to something akin to a flat-earth view. Yet a massive search for another way is taking place, named by Rio as "sustainable development." It will not happen, however, without a different mind-set: the renewing of our minds, our ways, our traditions themselves, Christianity included. If you would choose but two values and virtues in the Christian moral universe, at the heart of which is the God of an awesome creation who also has an infinite compassion for the still unfinished, broken, and despoiled world, choose these—justice and mercy. And go in peace. The long road from Rio has need of such pilgrims as you.

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On Generating Alternative Paradigms

by John H. Yoder

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The title originally assigned to me, and at the same time to two other speakers, was "Christian Environmental Values." As I went about drafting, a month before the Madison meeting, in the shadow of the well-attested greater special competence of the other two people assigned the same general theme, I needed to specify which of the several dimensions of this broad field I expect to attend to.

One level of "environmental values" is that of the overarching worldview held by a person or a community, in the light of which particular values and their priorities are situated and defined. A recent flood of writing, within which the work of Professor McFague stands out, has been devoted to revision of Christian thought on this level. I can hardly, at this point near the end of the conference, propose to contribute anything new here.

Another level of study seeks to improve the adequacy with which we formulate public game rules for keeping the world viable. We work, as the landmark conference at Rio did, toward a stronger definition of "sustainability," and for better ways to make transparent and accountable the relations between "South" and "North." We study whether deforestation, ozone depletion, CO^2 accumulation, or the virus is a greater threat to the common good. We note how rising prosperity decreases birth rates but also increases resource demands. We ask how world market mechanisms might be more justly structured. (This is within Professor Rasmussen's special expertise.)

What seems to remain for me to offer is a loosely linked handful of smaller topics. They might be called fragments of "wisdom." They have to do with how to go on living when all the big questions are insoluble. The themes I propose to attend to are "Christian" in the setting where I see them, although I can see nothing that would keep them from being shared by Jews or by original Americans. They are "ecclesial" in the formal sense, namely in that they take account of a value-bearing community which is neither the same as, nor in control of, the world as a whole, but they are not ecclesiastical. I can approach them most easily by formulating them negatively.

WHY KANT CAN'T.

It may be that no axiom is more deeply rooted in our cultural reflexes than the one which Immanuel Kant stated abstractly. We call it "generalizability." It says that I should make my decisions while asking whether the maxim that guides me should guide *everyone*. I should consider myself the prototypical actor in the human drama. I am in everyone's shoes. For example, if I cannot promise a world without war, I should be ready to kill. Any discipline I can't ask of everyone can hardly be binding for me. Any mode of action is to be tested by asking, "What if everyone did it?"

This assumption is natural in a culture where it is true (or thought to be true) that all people, or all "people of good will," share the same values and are bound by the same fate. Since Constantine created Christendom, that "truth" has been the official self-understanding of our culture's elites. Neither Reformation nor Enlightenment changed that deep reflex. Yet that is the axiom I am saying we must challenge.

It would have been unthinkable for Jews since Jeremiah, or for Christians before Constantine, to think that way. They were quite consciously and without apology a value-bearing minority. They could never have imagined themselves as the prototypical moral actor for *all* of the empire. Their ethical question was, "By what axioms should *we* be guided when we know full well that the rest of the world will not respect them?" The Jews called this independent value system Torah and the Christians called theirs "Good News"; the two were not as different in either substance or style as the heirs of both minorities have been pretending since Constantine. What they had in common was that one did not learn to know the will of God by laying over current issues the grid of generalizability.

One subculture which in our time, also in Wisconsin, exemplifies quite well the effectiveness of *not* taking one's signals from "What if everybody did it?" is the agriculture of my Amish cousins. While other family farms are being bankrupted by the rising costs of monster tractors, synthetic fertilizers and pesticides, fossil

fuels, and bank financing, the Amish are founding new colonies and restoring depleted land, doubling their population and their productive acreage every generation. Their demonstration, convincingly delivered over the last century, of how low-tech sustainable cultivation can compete within a high-tech market economy, would never have been undertaken if a priori generalizability had been their first criterion.

Their first "maxim" was the conviction that the will of God for human flourishing is known and carried by a specific living community, unashamed to be different from "the world." The functional measure of God's being sovereign is the community's being ready to suffer the world's scorn for the sake of obedience. The content of that "obedience" is not an abstract foundational imperative, nor a specified Biblical text, but a corporate lifestyle.

The second maxim underlying Amish sustainability is one—to the historian's embarrassment it must be confessed—whose conceptual origins cannot be documented from the records. From the polders of Friesland to the Vistula basin, from the mountaintops of the Bernese Jura to the plain of Alsace, to the Palatinate depopulated by the Thirty Years' war, the heirs of the movement which the official reformations of the sixteenth century called Anabaptist had become, by the end of the seventeenth century (the time when the Amish submovement began), *in the minds of others* as much as in their own, the bearers of a special mystique of identification with the land. Non-Mennonite publishers sold farmers' almanacs by putting an Anabaptist on the cover or on the masthead. Not much later this mystical reputation led to their being especially welcomed as immigrants in Pennsylvania and in the Ukraine, as in our century in Paraguay.

This phenomenon of mystical identification with the land has no immediately evident connection with the theological and ethical distinctives which had created the Anabaptist movement in the sixteenth century—with pacifism, refusal of the oath, believers' baptism, anticlericalism, or the independence of the church from the state. Nor do we find its grounds articulated in the hymns and prayer books of the later generations.

There would be hypotheses of a legal nature to explain this fact. In most of Europe people called Anabaptists could not at first be citizens or own land. This gave them a special stake in being exemplary tenants, and in mobility. Their capital had to be movable—namely their livestock and their skill in farming or milling. But this kind of explanation should have applied no less in some territories to Calvinist or Lutheran (or in some Alsatian villages to Jewish) tenant farmers. Some further explanation is needed; no articulated theology states it, but the fact is there.

Michael and James Himes, both Roman Catholic priests, in a recent article in *Commonweal* (1990), projected the notion that Christians might relate to the non-human creation as "thou" rather than as "it." They give no examples of what that would mean for raising maize or breeding cattle, for responding either to the Amazon or to the HIV virus. Can one say "thou" to a water table or an avalanche? The metaphor does not yet seem quite right to me to render the Amish mystique of knowing and loving the land and the livestock as it were from inside, suffering the drought and the plague with them. Yet it comes close.

I think I can say this much—though without any root in the available historical texts. The biblical model of a happy and empathic relation to nature is for the Anabaptist and Amish farmer the garden of Genesis 2, with human caretakers keeping order, as each species of plant and beast does its thing after its kind. Nature is not understood as jungle, thicket, or desert. The thorns and thistles of Genesis 3:17-19 do not have the last word in the homesteader's way. The earthquakes, droughts, and grasshoppers which the Hebrew prophets predicted as signs of divine visitation are the exception, not the rule. The Amish-Mennonite subcommunity's capacity sustainably to reclaim and serve the land, without irreversibly depleting the aquifers or sending the topsoil downriver, is guided by that positive vision of the garden, as well as by the previously-noted (negative) maxim of disregarding generalizability.

There may well be something conflictual at stake, for our conference agenda, in the fact that the garden is a more congenial vision, both for the Bible and for the Amish, than the wilderness. The Sierra Club or John Muir kind of "nature," that one can only walk through carefully, and not inhabit, is a less congenial vision in this connection than that of Eden.

WHAT WENT WRONG

Now that I have worked my way back to Genesis, I move on to lift out of that ancient prototypical legend another set of observations, without apology for beginning with the classics. That story rehearses for us a holistic vision of the human predicament, stated in economic and political terms from the outset. It is not that economic and political implications or deductions are drawn, by an intellectual operation, from a general statement about "culture" or on some other level, whether religious or intellectual. There is no bridge needed from nature to history or vice versa. *Adam*, humankind, is formed from the earth, *adamah*, and is at

home there. The vegetation is food for man and woman, but it is also their job. The divine creative initiative is extended by Adam's being directed to name and order the animals. Rationality, language, the ordering process which makes sense out of sense data, is not something already done for humans ahead of time in the timeless logic of God as a platonic super spirit or Logos, or preterhistorically decided in the eternal divine councils as the Trinity discussed in Miltonian rhythms what to do with a cosmos already destined to go wrong. It is the human, generic *adam*, male and female, in the local specificity of history beginning, who by naming the neighbors begins to discharge the role delegated to her and to him of ordering the garden.

This is not—to take the text as it stands—the kind of alien or violent "dominion" over nature which later visions of human power were to make of it. The garden was entrusted to us as a fundamentally hospitable context for us to serve God and one another. The fruits of the plants are fitting food, the animals are friendly neighbors (not to be eaten, in the vision of Eden); we are capable of ordering this cosmos, and its good is the same as our own.

The second strand of the ancient legend is expressed in the same idiom: One fruit, one tree, is not for us to dispose of. We are not absolute; the garden's subjection to our viceregal management is not unconditional. The order we administer is not for us to change. What is wrong with seizing the fruit of the forbidden tree is not simply that it formally disobeys an arbitrary and irrational rule promulgated by an absolute and absentee landlord. Seizing the fruit is the claim to sovereignty: "You shall be godlike" the serpent had said.

This may be the point in the ancient cosmology where the metaphor will be most translatable to our times. Now that our finite spaceship is full, the basic notion of respecting a limit is what we least readily accept. In that we are not godlike, because we are not godlike, we must discover and yield to the laws of limits and balance that govern life; we are not free to remove vegetation or to add freon as we wish. We cannot graze goats across North Africa without making a Sahara. We cannot plow the prairies without making a dust bowl. We cannot dam the Nile, or log the rain forests or the Himalayas, or send our wastes down the sewer, without untoward surprises. To think that we are able (arbitrarily) to control the system will mean seeing the (relative) control we did have slip from our grasp. What was a fertile garden with whose natural potential we could cooperate becomes a desert peopled by weeds and thistles, demanding burdensome labor before yielding any fruit. Death is the final verdict condemning the effort to break free of the divinely intended harmony. Dust returns to dust; our final link with the soil is that having refused to harmonize with it when alive, we are reabsorbed by it when dead.

But the ancient story has yet another strand, one of which our religious traditions have made much. After being thrown out of the garden and into mortality, humankind receives a renewed promise of survival. Man's work in the field will yield food although at the cost of sweat. To woman is given the promise of posterity although at the cost of pain. Life will continue under the conditions of history, or fallenness, but that it goes on under that judgment is still a divine promise.

After that promise there is a second curse, again described in terms of ecology. Even more pointedly in the Abel/Cain story than in the garden/desert account, we see here the traces of the ancient culture clash between two phases of prehistory. Cain had been going on doing what his father was condemned to do, namely tilling the soil and offering some of its fruits in sacrifice. Therein his story prolongs organically that of Genesis 3. Abel on the other hand is a throwback, for whose profession of herdsman the earlier narration had provided no etiology (animal sacrifice is not instituted by God until Genesis 6). The shepherd who does not break open the soil, who shrewdly and submissively adapts his flock's movements to the vegetation and the watering places that Mother Earth has already provided, is somehow "closer to nature" or "less fallen," less estranged from the original edenic covenant, than the farmer. Cain was unwilling to recognize the priority of his brother's lifestyle. Yet the narrative makes no effort to make the killing understandable by giving that kind of explanation. The killing is not retaliation or vengeance. It has no reason.

Thereby the prototypical fratricide coincides with the prototypical and perennial clash at the threshold of human history between the herdsmen and the farmers. Cain can no longer stay on the farm, because the soil which has drunk his brother's blood accuses him. The Cain story then goes on to create within less than ten verses all the basic components of fallen history:

- the protective threat of vengeance (which some of us call "the state");
- the city (what in Latin we call "civilisation");
- what we call the arts (Jubal's music);
- what we call technology (Tubal-Cain's metallurgy);
- and Lamech's escalating vengeance (which we call war).

All of what it takes to have moved from the Bedouin life to high Mesopotamian culture unfolds in Genesis 4 from that first murder.

Yet even this unfolding of prehistory is still under the sign of grace. Cain and his sons were able to create civilisation "away from the presence of YHWH/Adonai" because they had been placed, by the same God who banned them, under the protection of the threat of vengeance—the same threat which Cain's descendent Lamech was to escalate into the sevenfold vendetta.

To restate in our language what the ancient story assumed: Adam makes the transition from nature to culture; Cain from culture to war. Culture (whose root meaning, we remember, was agriculture), is already morally ambivalent. It is close to nature, but not natural. It scratches open the soil, wounds the breast of Mother Earth, in order to wrest sustenance from it. It is not thereby sinful, but it is part of the price of sin. It thus becomes the occasion for fresh sin and the multiplier of its damages.

The sin of Cain—and therefore my sin, for we all live ultimately from breaking open the soil—was not that he tilled and harvested. It began when he refused to recognize that his brother Abel was closer to the beginnings and closer to the God of the natural than he was. But he deepened that offense and estrangement, and made it irrevocable, when he chose not to share in Abel's sacrifice of a sheep from the flock. Instead, in a macabre parody of the killing of an innocent sheep, he sacrificed his innocent brother. That bloodshed made even his fields hostile to him.

Does the ancient legend in any way fit together not only with the roots of ancient near-eastern civilisation, but with the mess we are in? I might suggest that there are technological optimists among us who still trust in our capacity to discharge the original mandate to make sense of the cosmos by naming our fellow creatures and sovereignly managing our garden. This vision, when taken alone, tends to fuse organic evolution, historical progress, biblical hope language, Hegelian hope language, and technology in one seamless myth of development which only a few years ago seemed to be the other name for "peace" or for "freedom." It is a pre-fall vision, and when fully played out it hits the ceiling of the planet's limits.

Second, there are the religious fatalists who see the core of the problem in the original rebellion and the punishment visited upon promethean pride. We are condemned to survive by sweating it out until we die. There is neither cure nor release. The best Grace concedes to us is to see this struggle as a holding operation. James Watts represented it well: We may as well sell off what is left of nature, since if we don't burn it up the second coming will. The New Earth God has promised stands in no continuity to the one we are currently wasting.

Third, more at home with my text, there would be the prophetic critics for whom Cain's sin has more explanatory power than Adam's. Cain could have and should have admitted that his sacrifice was ambivalent; that his use of the earth was more violative than Abel's. The fundamental sin is not pride alone, as the Augustinians would have it, though when we speak of the inner structure of the human person we can say that that was what opened the door. The worse offense was the breach of fraternity with the simpler shepherd brother whose living from the land, like his sacrifice, was more natural. That breach resulted from the refusal to recognize that our toil in the fields, even when blessed with fruit, was already morally ambivalent, already blemished by the expulsion from Eden.

Yet even that wounded pride, and even the tension between the brothers which it produced, would not have been our downfall. Our downfall was that the *pride* became *murder*. From the levels of culture and cult we escalated the scandal to the denial of community, deceiving and destroying the brother because he was Other. (More recently we have been challenged to work at the offense of the Other when the difference is race, gender, or class. It may be important that the first Other was not the alien but the brother; i.e. the root hostility was not defined by any outward difference).

I have been looking in the Genesis legend for the presence of the agenda of culture and nature. It is there. The primal transition from gathering to shepherding to gardening, and from there to building cities and then empires, will be run through again and again as we seek to respond to the challenges we are studying here.

Yet the reason we have the story before us, the reason this ancient literature exists, is that those who recited it for generations and then wrote it out saw these prototypical events as having occurred in the providential context of divine ordering. Divine enabling is present not only in providing the first Eden, as seems to be taken for granted by many of those for whom "nature" and "creation" are equated. The intent of the expulsion from the garden (instead of death) is protective; the new beginning under changed conditions and a renewed promise is again Grace. The mark which saved Cain from being the victim of vigilantes is again Grace, even though the vindictive reflex which that mark symbolized opened the door for escalation into the paroxysm of Lamech's boasted sevenfold vengeance, with which the after-Eden story breaks off.

Reviewing the lay of the land as thus classically portrayed, my response by way of suggested directions

for hope can only be a pair of fragmentary insights, pebbles picked up in midstream.

DOES "HISTORY" HAVE TO BE EMPIRE?

As far as I as a relative amateur can see it, the most poignant polar debate in our arena is one which is well stated by George Tinker, a seminary teacher of Apache and Cherokee blood, in the last issue of *The Ecumenical Review* (Tinker 1992 p. 81). In a Christian context this text sharpens the formulation of a perennial polarity. It is most easily formulated, for our time, in the light of the Columbus backlash, although I remember the same point being made in 1980 by the Cinghalese theologian sociologist Tissa Balasuriya.

What the barbarian invasions from Renaissance Europe, overrunning both Asia and the Americas, meant, both in the old Indies and the new, one can say, was the intrusion of a time-oriented vision of God's rule as purposive, directional, history-making, into a world without that vision of directional history. Tinker rightly observes that the western theologies of liberation (he cites G. Gutierrez, but he could have reached back to the puritans) partake no less of this linear intrusiveness than do the imperial establishment ideologies; both "liberation" and "conservation" use "God who acts" language. Both can justify empire.

This time-oriented "God acting" vision, Tinker suggests, invaded a space-oriented, inclusive vision of human dignity in the world within a divine presence. That prior, spatial vision is "just as adequate, and perhaps more satisfying and certainly more egalitarian than the West's." (Tinker means the hunters and farmers of North America; he is not describing the Aztecs or the Incas). This precolumbian vision of harmonious space was overrun by the European vision of linear conquest not because the immigrant culture, structured as nation-states, was more humane or more moral, but because of its superior firepower, and because of the short-range tactical advantage that can always be seized by not fighting fairly. The European intruders refused to apply to the original inhabitants the theory of human dignity to which our nation's founding documents later were to appeal. (I here allude to the contrast between "all men are created equal" and the American practice of "ethnic cleansing" [to use the new Serbian label for it] in the terms most applicable to the nineteenth century in the United States, when most of the destruction of original American cultures was done. This is not to overlook the fact that the process of cultural genocide was as old as Columbus, and was seen by some Iberian Catholics to be immoral long before the Madisonian and Jeffersonian humanistic terminology was coined.)

Having stated the claim for the moral equiprobability of the pre-invasion vision, Tinker proceeds, since his context is Christian, to review how a creation-friendly restructuring of biblical language might work. He disavows "the value-neutral creation theology of Matthew Fox" and "new-age spirituality" in favor of a "'theology of community' that must generate a consistent interest in justice and peace." "The oppression we have experienced is intimately linked to the way the immigrants pray and how they understand . . . their relation to creation and Creator."

This is not the place to converse in detail, in an intra-Christian theological mode, about this suggested alternative formulation. I cite Tinker only as an instance of the much more broadly represented notion, classically formulated a generation ago by Lynn White, that what went wrong in our past was the basic biblical vision of a God who acts to bring about a new history. It is formulated here in culture-to-culture terms, although of course it has close analogies in the gender agenda, as in other social justice arenas. It is important for our conversation that this critique should have been stated by Tinker in the form of an appeal to an old and viable culture and history, namely his own, rather than our meeting it as we more often do in history-less trendy or fanciful forms.

This polarity is so fundamental that it would seem prima facie that there can hardly be any place to stand from where to discuss it further, to say nothing of adjudicating it. If we had three weeks in a graduate seminar, the challenge of lining up the arguments on both sides and verifying their circularity would be quite instructive. But for present purposes what I owe to you to point out is that that debate, in addition to being petitionary, is relevant only to the past. Neither vision, neither that of the God who acts to cover the earth with a European-managed, satellite-linked system of farms, mines, stock exchanges, and factories, nor that of Grandmother Earth in whom we all live and move and have our being, throws any useful light on what to do about Calcutta or Cairo or Mexico City tomorrow. Both visions fail when they collide with the finitude of the overpopulated planet. Both visions appeared quite viable until World War I, and as Tinker (I think rightly) says, the short-range victory of the Hebraic-European competitor since then has not been won on moral grounds. Neither however is viable in the 1990s in the face of population growth and resource depletion; both would (and do, and will) let the children starve. Neither model as we know it can cope with the population crisis.

I can make but one fragmentary, marginal suggestion, arising from this glimpse of the hopelessness of the debate hitherto. It is that when the global system is out of control, the normal moral decency which is within our reach may matter more than the vision of a universal solution which is not. George F. Kennan said this once about superpower diplomacy. The same observation may be applied both to institutional systems (the New Economic Order) and to cultural ones (whether to prefer Grandmother Earth or YHWH-who-Acts). The clash between the European immigrants and the original inhabitants of this hemisphere would have had to come out differently if both sides had listened to William Penn, had renounced recourse to lethal arms, and had constituted mediation panels (Marrin 1971, p. 199).

If Jesus of Nazareth is the culmination of the story of YHWH-who-Acts, then Constantine and Charlemagne were not. Then we don't let Columbus, or the Columbus backlash, dictate our agenda. William Penn extrapolated that reconciling history, the one marked by Jesus and Francis and Fox, to the New World, as Columbus did not. There are thus more resources for system criticism and the discovery of alternatives, within the Hebraic stream of affirming history, than the Spanish empire represented. There are surely also resources for internal system criticism within Tinker's Grandmother Earth culture, but I am not qualified to say how. Seeking within each setting the potential for self-restraint is a more promising common exercise than debating which prior history was less destructive.

The arbitrament of arms is not wrong merely or primarily legally, because the Torah prohibits bloodshed or the Gospel prohibits enmity. It is wrong because it resolves conflicts on other grounds than the nature of the problem and the dignity of all the parties involved (including not only the human adversaries, but also the trees). To renounce violence is the first functional meaning of affirming creation or nature. To renounce violence in itself solves few problems, but it holds them open for solution.

WHAT IS IMPERATIVE IS NOT NECESSARY.

A major, still unresolved challenge in the study of ancient faith documents is what we should do with literature of the genre which the experts call "apocalyptic" or "unveiling." Nearly a century ago Albert Schweitzer reoriented the study of Jesus by demonstrating that it is impossible to peel off from the Gospel stories the "apocalyptic" husk, so as to leave as kernel a timeless message about God and the soul which modern readers could welcome as reinforcing ideas they already have.

But *how* that perspective, or that mental style, or those ideas about history which we call "apocalyptic" *should* be appropriated is a challenge we are far from resolving adequately. As before, I can perhaps best make my point negatively, and formally.

One function of the language of apocalypse in the life of a faith community is that it restrains the presumptuous claim to have mastered the world system, either intellectually by a set of explanations or practically by a set of power manipulations. Modern technology comes closer to "mastering" *some* of the angles of the way the world works, but thereby it sets loose a larger set of surprising imponderables (see above the references to the Aswan dam, the sea of Baikal, and clearcutting the Himalayas). It is culturally good for us that the promethean myth, which describes so well our technological culture's temptations and vulnerability, should be ancient. Neither the idea that we might master the secrets of physical causation, nor the awareness that when we think we have done that, it merely escalates the destructiveness of our errors and ignorance, is a new insight.

Apocalypse promises, to those who cower under the threats of the tyrants of their time, that tyranny will not have the last word. It promises that the wholesome potential of creation will one day be fulfilled. It promises that diversity, and even conflict, will enrich human existence rather than destroying it. The particular cosmology, or the particular vision of miracle, in which these promises were clothed in ancient times, cannot be extrapolated literally from that century to ours; but it was not meant literally then anyway. It was meant as a call to creative response, denying the last word to a closed-system determinism. Some interpreters of "apocalyptic" transpose the language of promise into psychology, making of "hope" the human quality of hopefulness or optimism. Others use the language of sociology, describing the resistance of a beleaguered tribe to assimilation. Others use more intellectual equivalents: They suggest that what apocalypse communicates is "transcendence," or the notion of a God active in history. Each of these transpositions aims at enhancing the visions' accessibility or credibility. Each makes a valid point. Each is a reduction. Each of them sends us down a different path, if we ask philosophically how to validate it.

There is nothing wrong with reductionism, as long as it does not claim to have disposed of its object without remainder, or that its grid is the only one to use. The "remainder" that no reduction may be permitted to do away with is the good news that the future is not exhaustively contained in the past. What must be and what has to be are not the same. Fatalism as a view of the human

condition cannot be falsified on the basis of the past. It is always a priori evident that "you can't get there from here." Yet "apocalypse" refuses that restriction of the data.

One such reduction, self-critical in its paradoxical form, was the statement of Reinhold Niebuhr just sixty years ago:

> The truest visions of religion are illusions, which may be partly realized by being resolutely believed. For what religion believes to be true is not wholly true, but ought to be true, and may become true if its truth is not doubted (Niebuhr, 1932, p. 81).

It was easier for Reinhold Niebuhr in 1932 than it is for us today to spell out just how we should use such confident old words as "religion," "illusion," and "true." The point remains that the viability of our culture, as we hit the ceiling of the planet's capacity, will be correlative with our finding ways for *our* time, as heirs of the apocalyptic hopes of *all* time, to envision the world that needs to be, on other grounds than that it is the necessary product of our past.

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Applying Environmental Values in the Home, Community, School, Workplace, and Political Arena

Paul G. Hayes, The Milwaukee Journal

I have written about human population dynamics, environmental degradation, resource depletion, energy policy, and the natural sciences for more than a quarter century. First and foremost, I am an environmentalist.

Second, I follow no established, traditional faith. I was raised as a faint-hearted Christian by half-hearted Methodists, if such ever existed. I now am a fallen-away Unitarian Universalist, if such could ever exist.

My worldview is not God-centered, nor does it see an eternal time nor a limitless bounty. Nor is my Earth as young as some readers of Genesis and the analysis of the biblical generations after Adam would have us believe.

My Earth is a fixed quantity in both area and resources. It is one of the smaller of nine planets of a minor star, itself occupying a small corner in one of countless galaxies. Earth's importance is that it is the only place within human vision of the universe that presents incontrovertible evidence of harboring life.

Life on Earth takes millions of forms, of which humans are but one, albeit the dominant and most dangerous one, on a planet of great age, taken from the human perspective. I take life to be a single event, having begun, we theorize, at the cell level some two or three billion years ago. Fortunately for us, it has not yet ended.

Through the processes of evolution, life has evolved into many forms, most of which have long since become extinct, but of which perhaps as many as twenty million still survive, the larger as communities of specialized cells, the smaller, but most numerous, as single cells.

Either way, life still exists at the cell level. It is passed on from generation to generation at the level of the cell, but it remains a single event in which every organism participates. All living organisms, therefore, are not only related, but interrelated. Humans are notable in that they comprise the only species capable of contemplating life, its origins, and its interrelatedness. They are able to do this because they are endowed with the masterpiece of evolution: the human brain, an organ of a trillion cells.

Biological science from Darwin to demography tells us that species, if unchecked, instinctively will grow in numbers sufficient to exhaust their habitat. That most species do not means that they are not unchecked, but rather are controlled in natural settings by a biological interrelatedness we call the food chain, about whose particulars we still are hugely ignorant.

Humans, through the application of a larger brain which endows them with analytical skills coupled with manual dexterity, have removed themselves somewhat from the food chain by converting natural systems to their own use through technologies that began with the control of fire and continued through agriculture, metallurgy, and, today, through the control of nuclear fission.

Thus the impact of both their numbers and their technology on the natural environment rivals in scale virtually any other geological or climatic change we can see in the geological or evolutionary record; and some of them were immense, as measured by the numbers of species that were led to extinction.

As a journalist, I judge the three big news stories of the twentieth century to be, in this order: 1) The growth in the human population, from fewer than two billion living simultaneously in 1900 to five and a half billion today; 2) the rapid depletion of the nonrenewable energy resources that sustain that population growth, and 3) the universal spread of toxic residuals of human technology through water, soil, biomass, and air. Thus my worldview is based only on the natural sciences and not upon any view that comes to us through divine revelation. I see science as a never-finished, systematic method of asking questions, the answers to which will always reveal information that challenges the status quo and older worldviews.

I see the major religions, when confronted by that new scientific information, as having somehow to accommodate that new information without changing their own philosophical essence. Some religions, we know, exercise simple denial, to wit: There is no need to worry about bad air, the loss of a species like the spotted owl, or the snail darter. God willed man's dominion over the earth and other species; humans have his special protection, so plunge on without regard for the welfare of other species. Others have less problem, having seen the need to live harmoniously with the natural environment from the beginning.

Thus, in the United States we get arguments even in 1992 about what science textbooks ought or ought not say about the age of the earth, and we have debates about the origin of species, and so on. We also debate whether children should be educated regarding the technology of birth control, although those debates do

not extend to other forms of population control such as warfare and resource depletion.

All of this, I suppose, paints me as the prototype "secular humanist." My view is that traditional spiritual faith arises from ancient worldviews; that some such views are always challenged by new information and new technologies; that religious leaders always will find it necessary to accommodate that new information; and that they then try to fit such things as the perceived need for population control and environmental protection onto the agendas of their churches.

To me, environmental protection *is* the agenda, and all other human issues, from gender equality, to cultural diversity, to animal rights, to economics, to birth control, to medical ethics, to resource use, to war, to the road to spiritual peace, must be judged by how their manifestations conform to the larger goal, which is to protect our home, our Eden, for and from ourselves. ◆

***Kathleen Falk**, public intervenor, Wisconsin Department of Justice*

I too, as did Paul Hayes, should give a thirty-second disclaimer of my religious background as helpful in your evaluation of my remarks and my perspectives. I was born and raised Catholic with a capital C and, as with most of us in this room, when you hit your twenties and come of age you take on your own value system. In my case, it happened to be when the world was exploding with the Vietnam War, and my respect for our government was completely shattered. After having just read Rachel Carson, my views about the environment were completely shattered. And as I saw women role models all over the world rising, my old way of viewing what women could do was completely shattered. Therefore, it was not surprising that my views of the Catholic (with a capitol C) church were rapidly changing. So I think I would view myself as a catholic, now with a small c, drawing on principles from many religions I have learned a little bit about over the years, and this has formed the foundation for my own value system and helps explain why I do what I do.

I went to law school because I wanted to change a system that I thought was faulty, and I guess that reflects a value system that I see as faulty. I work in a cut-throat system where the only reward is basically to do the "wrong" thing. So trying to translate the principles and topics of this conference to my field was an incredible challenge, because it is so far removed from the people and the mode of operation that I deal with every day.

I can't imagine walking into a court room, as my job requires, and arguing to the judge that he or she should rule against the Department of Transportation for its massive highway building programs, which are more environmentally unsound and socially and economically unsound, in our office's view, from other modes of transportation that are less energy-consumptive and cause less urban sprawl and arguing that the judge ought to change the state's highway building policy and spend $2 billion on other modes of transportation because it is better for the earth or because it uses resources we all commonly share. The judge would appropriately laugh and throw me out, because the judge's job is not to reflect those value systems or choose or make a value choice, but to enforce and interpret the laws the legislative body has charged him or her with enforcing. My other job, of course, is to intervene at administrative decisions. We have the legislature, the agencies, and the courts to consider, and I have to be in front of the agencies every day. I can't imagine walking into an agency bureaucrat's office, whose job, for example, is to decide what the public access rights ought to be in order for you and me to enjoy access to all the state's navigable lakes and streams. I can't imagine saying to that person, "We all ought to have access to those lakes and streams because we share them commonly, no one owns them." I can't imagine arguing to that agency bureaucrat that we all own these streams and lakes—I would be laughed at. (Rabbi Berman's comments left me with a desire to learn more after hearing him say there is no Hebrew word for "own"!)

So the only recourse is through the legislature, and thus we lobby for environmental protection laws. I frequently had the pleasure of lobbying Mary Lou Munts when she was a legislator, and she is one of my mentors. But I can't imagine even going to her, an environmental zealot, and arguing that the best mining policy in the state or the best transportation policy in the state is one that reflect's these values of common ownership or possession or some kind of environmental ethic that should control what the state policy is in those areas. That is a concept or an argument that would have had no relationship to her role and job in dealing with the very cut-throat process where power and rewards are generally not based on that kind of common, shared value system.

So how do I translate the topic of the conference and the values that fundamentally drive me to what I do every day to change a system which is completely abhorrent to that kind of language and that kind of outcome? I guess one way is to be somewhat cynical and recognize that the system really doesn't want to hear what I'm saying, and then to attempt to move that system and get it to change for other reasons and with other arguments. That's the challenge, and that's what I do every day: I try to figure out how to get that system to change for these values within the framework of a

different value system and with a different set of strategies and arguments.

As we all learned in seventh-grade civics class, with the three branches of a democratic government, the legislature is the place to articulate a value system. The irony is that in the legislative process, where the majority is supposed to rule, that is generally not the case because a minority can prevent or pass legislation, due to the inadequacies of our legislative process. So even fundamentally the hope we share that a democracy would reflect our collective values doesn't always prevail.

Recently I met with the new dean of the College of Natural Resources. I wanted to introduce some environmental advocates to him in connection with the critical role he plays in determining policy for that important institution on campus. The environmental movement has made a particular effort to urge the College of Natural Resources to set priorities for the sustainable agricultural efforts which many in the university are working on in order to reduce the use of pesticides, increase corn production, and eventually eliminate environmentally harmful modes of agriculture. We are trying to change a value system and an institution that has enormous potential and power to reflect a more sustainable future for Wisconsin. I hope the ideas explored at this conference will generate constructive discussion among us all. Remarks prepared for a panel discussion on Human Values and the Environment, held at Madison, Wisconsin, October 1-3, 1992. ◆

William Graham, owner and president, Agrecol Corporation, Madison

The environment is in a crisis which must be addressed at all levels of our lives. No longer can we sit and watch others grapple with the tall order of trying to rescue planet Earth from the ever increasing degradation it suffers through no choice of its own. As someone stated, saving the planet is not a spectator sport. Success in this case depends on erasing the imaginary sidelines that separate spectators from participants so we can all get involved.

Though environmental protection costs money and takes time, the benefit clearly outweighs any incurred cost. The cost could be thought of as a doctor bill or a maintenance bill. If you take good care of someone or something, it is more likely to be healthy and last a long time. The cost must ultimately be paid by all of us and ultimately be incorporated in the purchases we make. Currently we do not pay the true cost of goods and services. For example when you buy a household cleaning product, the cost of disposing of the product safely is not included in its purchase price. The fact that consumers are willing to pay more for environmentally friendly products is evident from the rise in the sales of green goods. Thus there is hope that some kind of environmental ethic is already evolving. The challenge of instilling this environmental ethic into each person's life is before us and needs to be addressed today. This challenge is especially difficult because not only do our actions need to be changed, but so do our thought processes.

No longer can we afford the luxury of ignoring the environmental crisis. Species are going extinct at an unprecedented rate. Entire ecosystems are threatened. How many warning signals do we need before we take responsibility for our actions and drastically improve the situation we have created?

I guess if I am going to get an argument started, I will say that the problem belongs to *we the people*. The problem is going to be solved by we the people, and we the people are going to have to pay for it. That is the point I want to make. ◆

Mary Lou Munts, former state representative and member, Wisconsin Public Service Commission

Since I am retired, I have had the good fortune to attend quite a bit of this conference before deciding what I might say, and I was fascinated by the broad range of speakers. But I must say I felt there was a huge gap between what I heard and what we are supposed to be doing here. I keep wondering what kind of transition there could have been, but I'm not sure I have the answer.

Two of the most important ways in which I think of myself in values terms are as an environmentalist and as a feminist. These are not ways in which I described myself when I was young. In fact I did not really use these words until I was elected to the legislature. In a sense, however, they were latent and became revealed to me. I hoped to be chair of a committee, and Norm Anderson made me chair of the Environmental Committee, though it was not my first choice. I was already a member of the committee, so that I had some background—and I became what I guess I always had been.

I grew up in Whiting, Indiana, a small oil refinery town—I describe it as a long smell between Chicago and Gary. My parents realized what Whiting was like in terms of pollution, visually, aesthetically, and olfactorily (if one can say that), and in 1932—out of desperation—they built a cabin on the Indiana dunes. At that time, this area was an absolute Shangri La on Lake Michigan. You could go down to the beach and see nothing but lake and beach in every direction—although you could see Chicago in the distance. It was an absolutely mar-

velous place to grow up. We didn't put shoes on from about Memorial Day to Labor Day.

Paul Douglas lived there, and when he went to the Senate from Illinois in 1948, he tried to save the dunes. We now have a national lakeshore there, but only after the Indiana politicians permitted a complete rape of the area with a power plant, a steel plant, and an industrial harbor development. It is a classic story of what we allow to happen to resources, and so I obviously am an environmentalist.

Many of us, I believe, become environmentalists through our own personal experiences without saying we come to it through a broader value system, or philosophy, or religion. I think we're very affected by specific things. That is why I like very much what George Cornell said about kids. You have to start young. My exposure when I was young was formative. My parents did as much for me by building that cabin as anything they did through my college education. They gave me a worldview—a view that goes beyond the world, I think.

So what did it mean for people like me to work in the legislature? I was way on the left wing and soon was part of the very small group of people who would call themselves environmentalists. It is the *Sturm und Drang* of the fight that people begin to be identified with, causes they hadn't even thought about before they got there. At any one time a group concerned about the environment, or women's issues, will have only a minority, and for them maybe it's not a very explicit goal. However it becomes so through the fight and through the efforts of people who work with them. They begin to feel they really can do something to help.

I saw the legislature as a very frail creature but with great potential. I'd had a wonderful introduction to it from Willard Hurst who teaches at the law school. He described a state legislature as a cockpit of interest groups. Of course it's true of the Congress as well, but it's more evident in a small place where the atmosphere is more intimate and you can watch closely. Those interest groups are extraordinarily active, and they have become even more active and more important because of their role in campaign financing. That's one reason why I'm interested in Common Cause, both at the state and federal level. Money makes such a difference, more difference than we would want it to. The small public interest groups—and there are certainly public interest groups for all kinds of causes lobbying in the legislature—are outnumbered in more ways than one. It's not just that they are outnumbered in terms of size, but they can't afford to be there every day and every hour, and they do not have the time and money to socialize with legislators afterwards and to be as much a part of the "social swim" which often determines who gets heard.

After all that, you may think nothing positive ever happens. Actually a lot happens. The question is, how do you make sure things happen? That's what I spent a lot of time trying to figure out, because I almost had an addiction to passing bills. In the case of the environment, one way that evolved was a consensus process which has been both admired and criticized. I think we came to it out of a pragmatic need. I'd seen something like the wetlands bill go down in flames. Those of us who realized that the bill wouldn't be one we wanted actually were the ones who stopped it a couple of times. You need more than one group to pass something. Interest groups, in a way, have to have their interest resolved for legislation to pass. So particularly in areas that affected environmental regulation, getting people who are part of the problem to be part of the solution made a lot of sense, and we did this in many areas. The last notable one was groundwater. We did it in solid and hazardous waste, in air pollution permits—in a wide range of issues. I would argue that this has great value, not just from a pragmatic standpoint, but it has the potential at least for greater acceptance. At the same it is a change agent, because people like to feel that they are doing something to improve the world around them.

I think if we take a black-and-white view, believing simply that there are those of us who are good and others out there whom we must fight with, we're missing the boat. In any business there are people who, if it doesn't cost too much, would like to do better. Some of them are hired in specific jobs. For example, I was working on a worker right-to-know bill, there was a fellow who was an industry environmental engineer, sort of a "Deep Throat," who kept calling with one idea after another. So you have people whose very jobs are to do some of these things, and what they want is for more people to say to their business, "You know, you had better do this," and then they can say, "This is what we *could* do."

I had this insight at a meeting of the Wisconsin Manufacturers and Commerce Association where the chair of the environmental committee came up to me and said, "You have to realize that some of us wear a lot of hats." He said, "I could be any place in the country with my national corporation, but I want to be in Wisconsin because I hunt and I fish." So we have assets that some states don't have. We have an environmental ethos, we have a great state in terms of our resources, and we have many people who live here for that reason—some of them even work for industry.

You can use people's best feelings about themselves and about what they do through a consensus process, and I saw very much the same thing as I became a utility regulator. I spent the last six years on the control side of the fence. One reason that we have progressive utilities in this state is that we have strong regulation. And with all the frailty of our legislative process, I certainly saw from the inside, both as a commissioner and at one point chair of the commission, that we had a great legislative framework.

Our strong planning process had been designed through a consensus process, with Kathy Falk and Peter Anderson from the Environmental Decade being extremely important, and the utilities and the Governor's office all very much involved in putting together the best planning statute in the country. It derailed the next generation of nuclear plants. We were the only state that really saw early that electricity was not going to continue to double its growth. We stopped seven nuclear plants which were waiting in the wings, and it was done administratively. In effect, it amounted to a nuclear ban, achieved through an administrative agency. I don't take any credit for that, but the legislature deserves a lot of credit. It put in place a process where the advocates, the utilities, and the agency staff could debate these issues, and the commission could make decisions.

That process continues in areas which I think are tremendously important now, affecting such concerns as global warming. From placement of a transmission line in a certain location to the very broad questions of whether you build new power plants, it all comes under scrutiny and is part of that administrative process. Our framework says you must look at what have come to be called "externalities." You don't just look at it from a dollars-and-cents standpoint. This is not true in most states, although some others are also beginning to do this.

The utilities and the advocates do not agree on the value of these externalities, but there is a forum for discussion. There is a forum for the decision-maker to say how much is it worth not to have the power plant built, or how much it is worth not to have the power line go in this location instead of that location. It makes explicit some of the value considerations discussed at this conference, and it is an unusual process in this respect. Unfortunately, government is not required explicitly to lay out values and show that it is worth paying more for a certain result. You tend to have numbers arguments instead of recognizing that the real issue relates to values. In conferences such as this, we turn the discussion more toward values, so those who are making public policy have a better basis for making decisions.

I want to come back again to the involvement of people who are in the political process. I'm really the ultimate marginal person—the woman, the environmentalist—who had to become an insider though I always thought of myself as an outsider, because if you become an insider completely you lose the capacity to want the change that the marginal side of you knows must happen.

So how do you increase the purchase that people like us have on public policy? It's an extraordinarily complex thing. But one of the thoughts I want to leave you with is how to involve kids. When I was elected, I realized our children had never visited the legislature when they were in school, although they lived in Madison. They went to the bakery, and they went to the fire station, but not the Capitol. So I wrote to all the principals and I said, "Look, here we are, but you're not coming!" As a result, we had a lot of visitors. I also offered to speak to any class that invited me, and so I spoke to a lot of classes.

I can tell you the best kids to speak to are not the high school kids, but rather fourth grade, fifth grade, sixth grade—the younger the better. We had one group that started a bill on an issue they had read about in the *Weekly Reader* relating to requirements that elevators have controls which people who are blind can feel. Fred Risser and I sponsored the bill, and the kids were there to testify. The initiative came from the children at Orchard Ridge Middle School in Madison.

Unfortunately, there are not many simple things that kids can relate to, but there are issues such as recycling that affect our personal lives and behavior. That is why I was so disappointed that one of my favorite bills, the bottle bill, never passed—the interest groups were too strong. But we had kids come to our big hearings. One imaginative science education teacher had his class bring in all the trash they had collected along a certain stretch of road. And so they walked down the aisle of the Assembly chamber with their bags of trash. One member of the environmental committee reacted in a negative way, insisting children should not testify. I had never heard anyone say that children should not testify, and I was upset. Here were the kids, accompanied by their teacher. I said of course they could testify! I can tell you I soon solicitated a memo from the Speaker, saying that the decision as to who can and cannot testify is up to the committee chair. The important point is that you don't need to be of voting age to care about what you see around you. Participation doesn't necessarily have to be through the legislature, but it has to be through participation in some way that will make a difference. You have to make a difference where you are. That is what it is all about.

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